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Long Duration Exposure Facility Experiment M0003 Deintegration Observation Database

Prepared by

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This technical report has been reviewed and is approved for publication. Publication of this report does not constitute Air Force approval of the report's findings or conclusions. It is published only for the exchange and stimulation of ideas.


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19. ABSTRACT (Continue on reverse if necessary and identify by block number) The four trays of the M0003 materials experiment on LDEF contained over 1600 samples from 20 subexperiments. The complete sample complement represented a broad range of materials, including thin film optical coatings, paints, polymer sheets and tape, adhesives and composites, for use in various spacecraft applications, including thermal control, structures, optics, and solar power. Since some subexperiments included duplicate samples exposed on the leading and trailing edge trays for 9-week, 19-week, 40-week, and 69-month durations, comparisons provided a valuable time history of degradation. During the deintegration of the subexperiments from the M0003 trays, each sample was examined using bright field, dark field, and Nomarski light microscopy techniques. Over 3,000 color macrographs and photomicrographs were made of the condition of the M0003 trays and the individual samples. Records of the condition of the samples, photographic records and all available references of publications on postflight analyses on each sample were collected in a computer database (4th Dimension™ for the Macintosh computer). Upon written request, the database records and photographs for specific samples may be obtained from The Aerospace Corporation Archives. Copies of the electronic database are available on floppy disk by request, as well. Directions for requesting the records, photographs, and database copies are given in this report.				
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SUMMARY

This report summarizes the extensive photographic and electronic observation database compiled during the disassembly of The Aerospace Corporation M0003 Materials Experiment that was aboard the NASA Long Duration Exposure Facility (LDEF) spacecraft. The LDEF was deployed by Space Shuttle into low Earth orbit (LEO) in April 1984, and was retrieved in January 1990. The M0003 Experiment contained more than 1600 material test samples from various organizations, including the Aerospace Laboratories, DoD Laboratories, and other government contractors. The M0003 test samples included a variety of current or baseline spacecraft materials such as thermal control coatings, laser optics, polymer composites, structural materials, laser communication components, dosimeters, antenna materials, contamination monitors, solar cells, fiber optics, and electronic piece parts.

This report describes the M0003 experiment and the deintegration effort at The Aerospace Corporation. It gives an overview of the contents of the M0003 sample database in diagrammatic form. In addition, the contents of the database are condensed in two tables in the two appendixes to this report: one providing a list of the sample complement by Database Number with an abbreviated description of the samples and their post-flight condition, and the second, giving the sample complement sorted by spacecraft application. The M0003 Deintegration Observation Database is available to requestors on a 3 1/2 in. floppy disk (in 4th Dimension™ for the Macintosh format) for more complete examination of the contents.

Through its Corporate Archives, The Aerospace Corporation is distributing individual database records and prints of photographs taken to document the post-flight condition of the M0003 trays and samples. The records and photographs of the test samples are valuable because they are of spacecraft materials that were retrieved and physically examined after extended exposure in the natural space environment, a very rare event. A few examples of the over 3,000 color photographs (although in black and white) and an example of an observation record are shown in this report. Information on how to order copies of the photographs and records or to request disk copies of the M0003 Deintegration Database is also provided.

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PREFACE

The authors express their sincere appreciation to the Space Test Program (SMC/CUL) for funding the M0003 deintegration and to Lt. Col. M. Obal of the Strategic Defense Initiative Organization SDIO/TNI, Materials and Structures, and Lt. M. Jones, W. Ward, and K. Davidson of Wright Laboratory Materials Directorate for funding the database portion of this work. We would like to thank the NASA Langley LDEF Science Office for their unstinting support to our project. We also wish to acknowledge the contribution of the following individuals to this effort: Col. J. Armstrong, R. Bachus, D. H. Barker, G. W. Boyd, R. A. Brose, W. C. Burns, W. H. Childs, L. G. Clark, A. F. DiGiacomo, L. Fishman, E. L. Galvin, C. S. Hemminger, Capt. D. Johnson, J. L. Jones, H. K. A. Kan, W. H. Kinard, C. Kiser, F. Knight, A. Levine, B. Lightner, N. Marquez, G. D. Martin, L. A. Okada, R. O'Neal, K. W. Paschen, C. Rochester, H. T. Sampson, T. A. Stoner, W. K. Stuckey, T. K. Tessensohn, G. A. To, H. E. Wang, D. B. Wischart, and J. C. Uht.

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I. INTRODUCTION

In 1990, after extended exposure to the space environment, the NASA Long Duration Exposure Facility (LDEF) was retrieved from low Earth orbit (LEO) by the Shuttle Columbia. The LDEF, shown in space just after deployment in Figure 1, is a 12-sided, 30-ft. long, 14-ft. diameter, unmanned spacecraft. It was deployed by the Space Shuttle Challenger into a near circular orbit at 476 km altitude, 28.5° inclination, on 7 April 1984. Originally intended for an 11 month stay in space, a backlog in the NASA launch schedule delayed the LDEF recovery until 69 months had elapsed. LDEF was retrieved in a decaying orbit at 332 km. During the 69 months exposure, materials on the LDEF were subjected to ~12,000 hours of solar UV, 32,422 thermal vacuum cycles, an electron dose of 2.5×10^5 Rads, a proton dose of 1.6×10^3 Rads, and thousands of micrometeoroid and space debris impacts.

The LDEF was gravity gradient-stabilized and therefore maintained a constant orientation with respect to the velocity vector on orbit. Only those experiments on the side of the spacecraft facing into the velocity vector (leading edge) received a significant atomic oxygen dose (maximum 9×10^{21} atoms/cm²). Atomic oxygen effects often overshadowed or completely removed the damage due to UV exposure on leading edge materials. The leading edge experiments were impacted by space debris and micrometeoroid particles by an order of magnitude more than the experiments on the wake side (trailing edge) of LDEF. The largest crater produced by hypervelocity impact was 5.25 mm in diameter and was found on structural hardware on the spaceward-facing end of LDEF.

II. THE AEROSPACE CORPORATION M0003 EXPERIMENT

One of 57 experiments flown on the 86 experiment-holding trays arrayed around the LDEF, M0003 was the most comprehensive materials experiment. It occupied four of the experiment trays. The M0003 experiment, planned and integrated by The Aerospace Corporation Mechanics and Materials Technology Center, was designed to study the effects of the space environment on 1978 current and developmental spacecraft materials. M0003 was a collection of 20 subexperiments from The Aerospace Corporation laboratories, Air Force and Navy laboratories, and Department of Defense contractors, and was fielded under the sponsorship of The Aerospace Corporation Mission Oriented Investigation and Experimentation (MOIE) program, the Air Force Space and Missile Systems Center (then SAMSO) and the Space Test Program. The compilation of the deintegration observation database was funded in part by The Aerospace Corporation MOIE program and the Strategic Defense Initiative Organization (SDIO) with Wright Laboratory through the SDIO Space Environmental Effects Program. The M0003 subexperiments, each with the current point of contact, are summarized in Table I.

A. M0003 TRAYS AND SAMPLES

The M0003 hardware consisted of four peripheral trays, two experiment power and data systems (EPDS), two environment exposure control canisters (EECC), and several Li/SO₂ batteries to satisfy power requirements. The experiment was equipped to record temperature, strain, quartz crystal microbalance (QCM) frequency, solar cell output, fiber optics output, circuit interrogation, and various data system parameters. The trays were flown in pairs; one pair consisting of a 6-inch deep tray (carrying an EPDS and a canister) that was connected by wiring harness to a 3-inch deep tray (carrying mostly sample coupons). One tray pair was located on the LDEF leading edge and a similar pair was located on the trailing edge. Aerospace designated the trays as "L3", "L6", "T3", and "T6", according to the tray depth and leading or trailing edge location. Later, NASA assigned the trays to an exact location on the LDEF and adopted a nomenclature that designated the trays according to their row and ring location (shown in the schematic in Figure 2). Thereafter, the trays were known as "D9" (L3), "D8" (L6), "D3" (T3), and "D4" (T6). The Aerospace tray designations had already been incorporated into a unique identification code that the M0003 integrators had assigned to each sample. The code was used extensively in the preflight coordination and planning documentation for the M0003 experiment and could not easily be changed thereafter.

The design of the trays was modular; a system that allowed samples to be thermally coupled or decoupled from the tray and the LDEF structure. Each tray had six modules, designated by Roman Numerals I through VI. Most test samples were mounted on black-anodized aluminum hardware plates on the modules. Many samples were apertured, therefore, exposed versus unexposed portions of their surface could be compared. The samples on the M0003 trays included a variety of paints, coatings, laser optics, composite structural materials, laser communication components, dosimeters, antenna materials, contamination monitors, solar cells, fiber optics, and electronic piece parts. Nearly all of the samples can be informally grouped into five material types: thermal control, polymeric, optical, structural, and solar power materials. Figures 3 through 7 show diagrams delineating the M0003 sample complement by these types. Post-flight photographs of the four trays before deintegration of the samples and maps showing the layout of the samples on the modules are presented in Figures 8 through 15. Figures 16 through 19 show post-flight photographs of the open canisters with

sample maps. Preflight photos are available for all four trays and the open canisters loaded with the samples, but are not included in this report. These photographs are available in black and white or in color.

Most M0003 subexperiments included samples that were exposed for 69 months duration on at least one of the four trays and many subexperiments contained duplicate sample sets on the leading and trailing edge trays. A few subexperiments included sets in the canisters as well. Some subexperiments also contained a set of flight control samples that were mounted within the modules, and therefore were not directly exposed to the space environment.

For the 69-month duration of the LDEF exposure in LEO, the four trays of samples experienced somewhat different environments, depending on their location on LDEF (shown in Table II). Measurements made following LDEF retrieval revealed that, on orbit, the vehicle had been oriented so that Row 9 was 8° off normal to the spacecraft velocity vector (Refs. 1 and 2). The solar exposure values in the table are combined direct sun and earth-reflected radiation (Ref. 3). All trays on LDEF experienced the same number of thermal vacuum cycles, but temperature ranges varied, depending on the particular thermal control design of each experiment. Temperature monitoring devices showed a temperature range of -50 °C to 120 °C at the extremes. Most materials experienced more moderate temperature cycling. Materials on the leading edge trays, D8 and D9, were struck by an order of magnitude more hypervelocity particles than impacted the trailing edge trays, D3 and D4 (Refs. 4 and 5). The largest diameter hypervelocity particle-produced crater on M0003, shown in Figure 20, was a 2.5 mm dia. puncture through the Chemglaze A-276-coated, 40 mil-thick aluminum sunshield covering the EPDS on the D8 tray.

B. ENVIRONMENT EXPOSURE CONTROL CANISTERS

The canisters on trays D4 (T6) and D8 (L6) were closed (O-ring seals) preflight and were programmed to open in three stages to obtain different intervals of exposure on certain materials. Two weeks after the LDEF deployment, the canisters opened to expose a large (~3/4 area) of specimens. The next canister stepped movement occurred approximately 23 weeks after deployment and exposed an additional row of samples (~1/8 additional area). The final canister stepped movement was at approximately 33 weeks and exposed the last row of samples (1/8 area) by opening to the canister's fullest extension. The canister drawer returned to the completely closed position at 42 weeks after initial opening and remained closed during the remainder of the LDEF mission. Thus, varying exposure times of 9, 19, and 40 weeks were obtained for some samples in addition to the full mission exposure of 69 months for duplicate samples on the other M0003 trays. The canisters were opened in the clean room at Aerospace roughly 5 1/2 months after LDEF retrieval. LDEF special investigation group (SIG) personnel were present during this event and assisted in sampling the canister gases and in helium leak testing of the seals. The canisters had lost vacuum and were both essentially at atmospheric pressure when opened; some leakage of the front seals was detected.

III. THE M0003 EXPERIMENT DEINTEGRATION

As Principal Investigator for the M0003 experiment, The Aerospace Corporation Mechanics and Materials Technology Center was charged by the Space Test Program with documentation of the handling and disassembly of the M0003 experimental trays and with providing support to the subexperimenters. The support included full photographic documentation of the trays, modules, and quarter-modules from the earliest stages of retrieval through the complete deintegration of the trays, photographic documentation of the condition of the individual samples, packaging and return of the samples, and providing flight data to the subexperimenters. The deintegration tasks were documented in a relational computer database, 4th Dimension™ for the Macintosh computer, as the disassembly proceeded.

A. INSPECTION AT KENNEDY SPACE CENTER

The deintegration began with inspection of the M0003 trays at Kennedy Space Center after the removal of LDEF from the payload bay of the Shuttle Columbia to the Spacecraft Assembly and Encapsulation Facility II clean room at Kennedy. Observations were recorded and NASA photographic surveys were made to document the condition of the trays and samples following their reintroduction into the earth environment (air, humidity, gravity, etc.). The condition of flight control samples and the samples in the canisters could not be recorded as they were not accessible for inspection. Following the photographic surveys, Experiment M0002, which occupied Module VI on both D3 and D9, was removed from the trays before they were shipped to Aerospace.

B. DISASSEMBLY AT THE AEROSPACE CORPORATION

The four M0003 trays were shipped by air freight to The Aerospace Corporation and unpacked and disassembled in a class 10,000 clean room facility. Of the over 1600 samples on the trays, 1275 were individually examined at Aerospace. Boeing Aerospace had two subexperiments that occupied entire modules (Module V on D3 and Module V on D9). These subexperiments were not disassembled at Aerospace.

As test samples were removed from the other modules, they were individually examined by optical microscopy and photographed, preserving the orientation of the samples as mounted on the LDEF. Many of the samples experienced space environment-induced damage such as crazing, surface roughening, discoloration, erosion, contamination staining, and hypervelocity impact crater formation. Not all samples exhibited discernible changes, however. Observations of the condition of the samples were made by a single examiner who maintained consistent criteria for the qualitative descriptions of all of the M0003 samples in the visual inspection and in the optical microscopy examination. Important effects were photographed using optical microscopy at magnifications from 3X to 1000X. A Wild-Heerbrug stereomicroscope and a Zeiss Axioplan Pol research microscope were used for the examinations. Bright-field, dark-field, and Nomarski differential interference contrast microscopy techniques were used in the examinations. The observations of the condition of the samples were entered in real time into the computer database.

The objective of the microscopy examination of the M0003 materials samples was to provide the subexperimenters with a quick-look summary of effects observed on their samples that could assist them in planning their post-flight investigations. Another objective of the microscopy exami-

nation was to provide a record of the post-flight condition of all samples in the event that some subexperiments were not claimed by the original investigators. The observations made in the microscopy examination must be considered preliminary as this survey was only the first step in performing detailed analysis on the materials. In-depth analysis of the effects of space exposure on the samples was the prerogative of the subexperimenters and was not the role of the examiner or the deintegration team.

IV. THE M0003 DATABASE

A. OBSERVATION AND PHOTOGRAPHIC DOCUMENTATION

In the deintegration task, all M0003 samples were given a simple Database Number that corresponded to the more complex Aerospace Sample Identification Code permanently assigned to each sample in the preflight documentation. All entries into the database were keyed on these two identifiers, as illustrated in Figure 21. The Database Number in the example shown is 73. The Aerospace Sample Identification Code contains the M0003 tray location for that sample, the Roman numeral of the module on which it was mounted, its subexperiment number, the sample location number on the module, and the sample designation given it by the subexperimenter. In the example shown, the sample, L3II-7-65-10, is a specimen that was flown on tray L3, the leading edge 3-in. deep tray (D9) on Module II. It was part of subexperiment 7 and occupied sample position #65 on Module II (see Figure 9). It was designated as "10" by the principal investigator of the subexperiment. Either the Database Number or the Sample Identification Code can be used to retrieve the sample record which contains information identifying this sample as a ZnS optical coating on a fused silica substrate. The physical dimensions of the sample, the post-flight observations, and the address of the current point of contact are also given in the record. The photographic portion of the database is for the use of the Corporate Archives. It contains the data on the number and type of photographs taken of the individual sample as well as the conditions (lighting, magnification, etc.).

Over 3,000 macrographs and photomicrographs were made to document the condition of the M0003 trays and the individual samples. Overall photographs of the trays, modules, and quarter-modules, (front and back) were shot with large format print film in color and black and white. The post-flight tray photographs in this report (Figures 8, 10, 12, and 14) are examples of such photographs. As individual samples were dismounted from the modules, the underlying tiers of the module hardware were photo-documented to display their condition. In addition, photographs of leading and trailing edge module hardware placed side-by-side were made for visual comparison of contamination staining, erosion, discoloration, etc. Photomicrographs made during the optical microscopy examination were recorded on high-resolution 35 mm color print film. The prints of Database Number 73 in Figure 22 are examples of the types of photographs made to document the condition of the samples. Not every sample was photographed in this detail. The observation record for this sample is shown in Figure 23. This sample is a ZnS optical thin-film coating on a fused silica substrate. The ZnS coating buckled and probably flaked during the 69 months of exposure to the space environment. In addition, minute ring-like features were observed on the buckled surface at high (200X) magnification. Photographic prints and the accompanying observation records can be requested for particular samples (using the Database Number or Sample Identification Code) from the Aerospace Corporation Corporate Archives.

B. OBTAINING DATA AND PHOTOGRAPHS

The contents of the M0003 Deintegration Observation Record Database are condensed in two tables in the Appendix to this report. One table lists the sample complement by Database Number and gives a sample description and a brief description of its post-flight condition for each. The second table gives the same sample list sorted by spacecraft application. Many samples fall into several application categories. These tables can be used to identify samples of interest. Someone interested

in obtaining photographs of materials that show specific effects, i.e., graphite epoxy composites that have impact craters, could survey the description and post-flight condition columns in the first table to find many examples of such materials that are "cratered." Someone interested in adhesives used in bonding thermal control materials on the other hand, could look through the applications table to find thermal control materials that also were listed as adhesives. The Database Number of samples of interest could be noted and then consulting the first table using the Database Number, the description of the samples and their post-flight condition could be found. The location of the samples, leading edge or trailing edge, could be determined from the Sample Identification Code of each. If photograph prints and hard-copy records were desired, the Database Numbers could be entered on the Aerospace Form to request all photographs and records pertaining to those particular samples.

In addition to sample photographs and records and the condensed tables in this report, the entire M0003 Deintegration Observation Record Database is available to requesters on a 1.4 MB (HD) floppy disk in Macintosh 4th Dimension™ format. The database was streamlined to fit on the disk by omitting the photographic portion of the database. A user instruction text file is provided on the disk. The text file contains an explanation of the criteria used by the examiner in compiling the deintegration observations on the samples. The database structure file contains various layouts for searching through the contents of the database data file by Database Number, Sample Identification Code, or by Spacecraft Application. Searches may also be made by material, damage effects, categories, or text strings. Records in the data file include the dimensions of the samples, the descriptions of the composition and construction of the samples, the observations made at Kennedy Space Center, the deintegration observations, and the current subexperiment contacts for additional information on the samples (also publication lists, when available).

The Aerospace Corporate Archives maintains a copy of the complete database to coordinate requests for photographs of specific samples. Aerospace Form 5365 is provided at the end of this report to facilitate requests. Requests should be sent to the Aerospace Corporate Archives, P. O. Box 92957, Mail Station M2/326, Los Angeles, CA 90009-2957, phone (310) 336-5319; FAX (310) 336-5912. The requester should be as specific as possible in stating the type of information desired (e.g., color prints of full trays, black and white photographs of certain modules, color micrographs of a specific sample, and data records). This service will be provided as long as resources allow.

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Table I. Summary of M0003 Subexperiments.

Subexperiment number	Scope	Subexperiment Point of Contact	Organization/ Address
-1	Radar camouflage materials and electro-optical signature coatings	Charles Hurley	Univ. of Dayton Research Inst. 300 College Park Dayton, OH 45469-0001
-2	Laser optics	Linda De Hainaut	Phillips Lab/LIDA Kirtland AFB, NM 87117-6008
-3	Structural materials	Charles Miglionico	Phillips Lab/PL/VTSI Kirtland AFB, NM 87117-6008
-4	Solar power components	Terry Trumble	Wright Labs/POOC Wright Patterson AFB, OH 45433-6533
-5	Thermal control materials	Charles Hurley	Univ. of Dayton Research Inst. 300 College Park Dayton, OH 45469-0001
-6	Laser communication components	Randall R. Hodgson	McDonnell Douglas Astronautics Corp. Mail Code 1067267 P. O. Box 516 St. Louis, MO 63166
-7	Laser mirror coatings	Terry M. Donovan	3481 Murdoch Dr. Palo Alto, CA 94306
-8	Composite materials, electronic piece parts, fiber optics	Gary Pippin	Boeing Aerospace Co. Materials technology Dept., MS 2E-01 P. O. Box 3999 Seattle, WA 98124
-9	Thermal control materials, antenna materials, composite materials, and cold welding	Brian C. Petrie	Lockheed Missiles & Space Co. Dept. 62-92, Bldg. 564 P. O. Box J04 Sunnyvale, CA 94086
-10	Advanced composite materials	Gary L. Steckel	The Aerospace Corp. P. O. Box 92957, M2/242 Los Angeles, CA 90009
-11, -12	Contamination monitoring, Radiation measurements	Eugene N. Borson, F. B. Sinsheimer	The Aerospace Corp. M2/270
-13	Laser hardened materials	Randall R. Hodgson	McDonnell Douglas Astronautics Corp. Mail Code 1067267 P. O. Box 516 St. Louis, MO 63166
-14	Quartz crystal microbalance	Donald A. Wallace	QCM Research 2825 Laguna Canyon Road P. O. Box 277 Laguna Beach, CA 92652
-15	Thermal control materials	Oscar Esquivel	The Aerospace Corp. M2/241
-16	Advanced polymer composites	Gary L. Steckel	The Aerospace Corp. M2/242
-17	Radiation dosimetry	Sam S. Imamoto, J. Bernard Blake	The Aerospace Corp. M2/260
-18	Thermal control paints	Christopher H. Jagers	The Aerospace Corp. M2/271
-19	Electronic Piece Parts	Seymour Feuerstein	The Aerospace Corp. M2/244
-20	Tray Hardware	Michael J. Meshishnek	The Aerospace Corp. M2/271

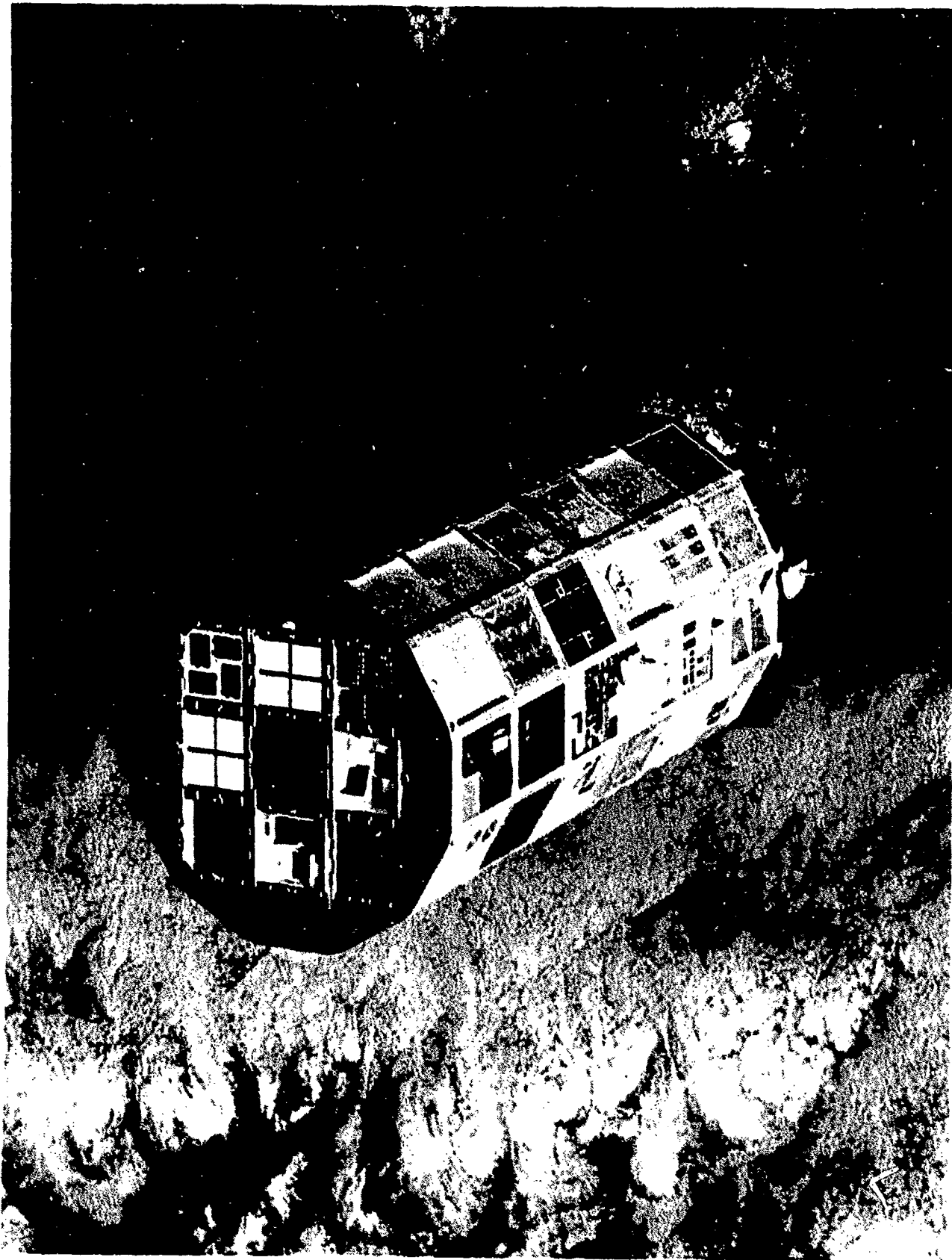


Figure 1. The LDEF in space just after deployment by the Space Shuttle Columbia (April 1984).

LDEF Surface Nomenclature

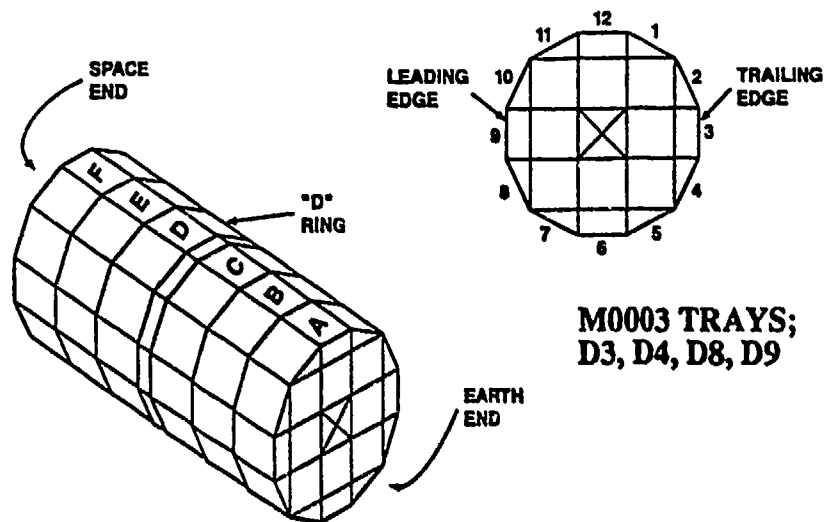


Figure 2. Diagram of LDEF showing row and ring nomenclature.

Table II. Environments Experienced by Samples on the M0003 Trays

Tray	AO (atoms/cm ²)	Solar Exposure (hr)	Thermal Cycles
Leading edge D9	8.99E+21	11,155	32,422
Leading edge D8	7.15E+21	9,409	32,422
Trailing edge D3	1.32E+3	11,110	32,422
Trailing edge D4	2.31E+5	10,458	32,422

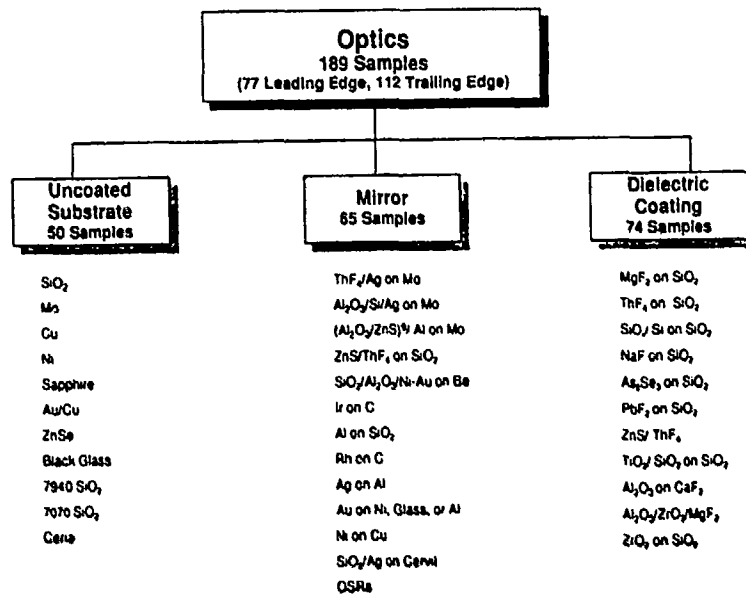
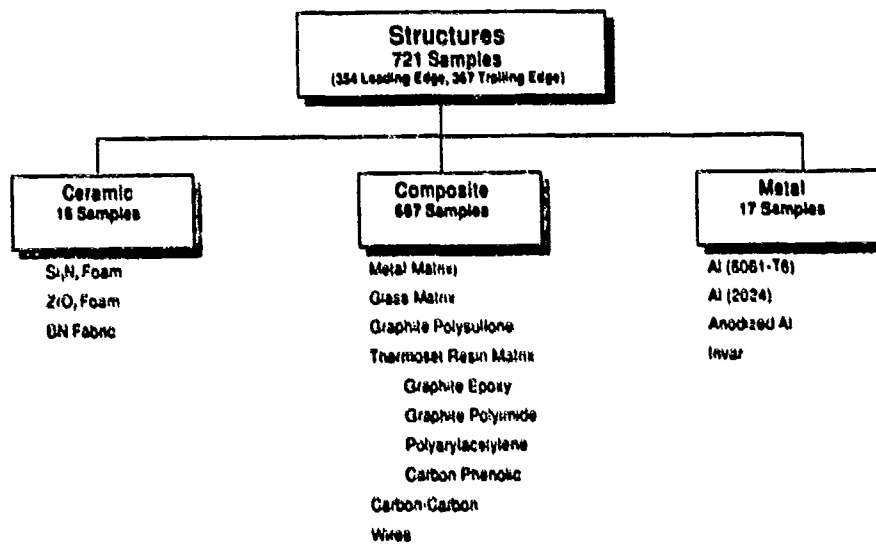
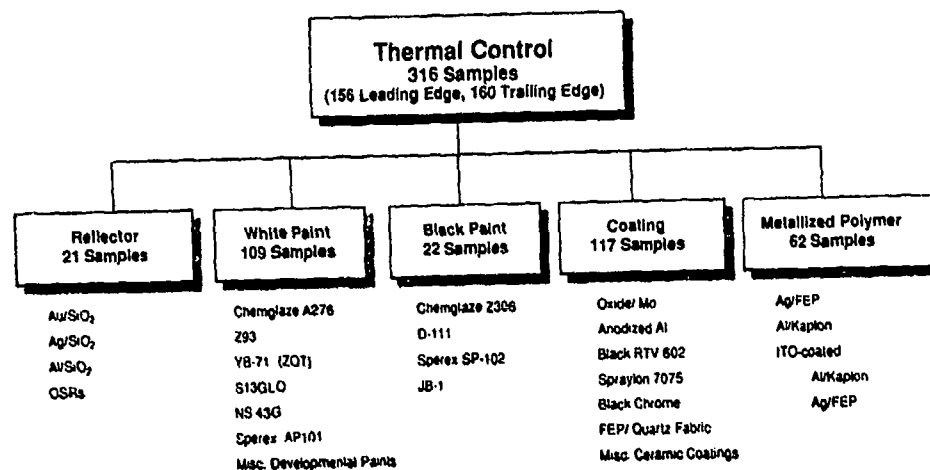


Figure 3. Diagram of optical samples in database.



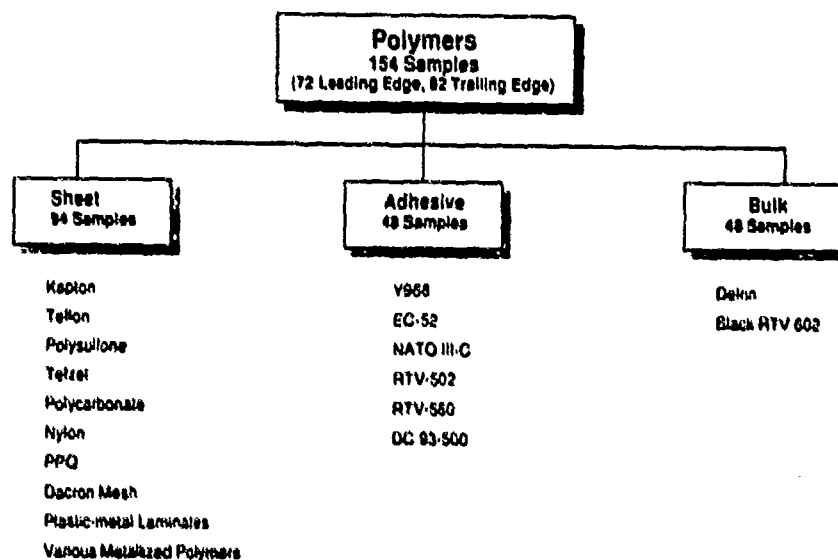
Note: Not all Structural samples fall into these three categories

Figure 4. Diagram of structural samples in database.



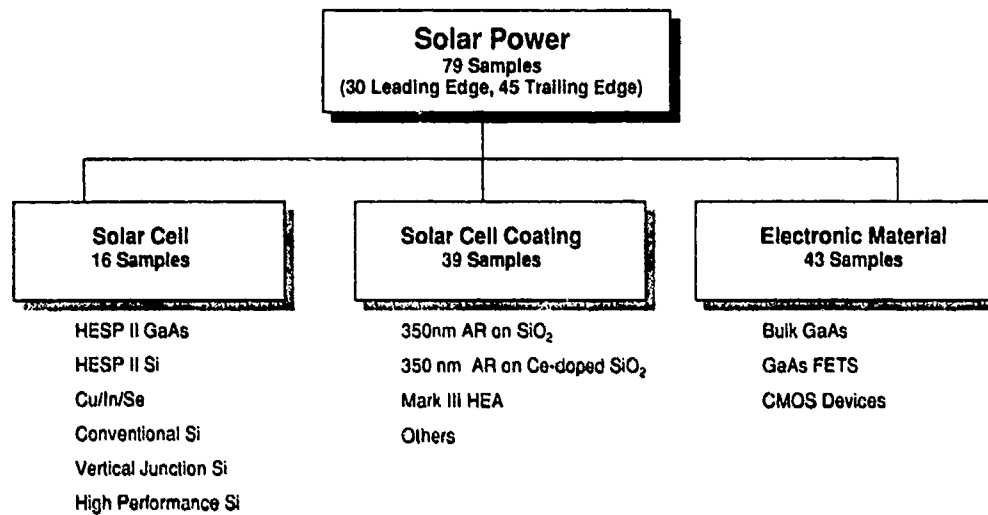
Note: Some Thermal Control samples fall into several categories

Figure 5. Diagram of thermal control samples in database.



Note: Some Polymeric samples fall into several categories

Figure 6. Diagram of polymeric samples in database.



Note: Not all Solar Power samples
fall into these three categories

Figure 7. Diagram of Solar Power samples in database.

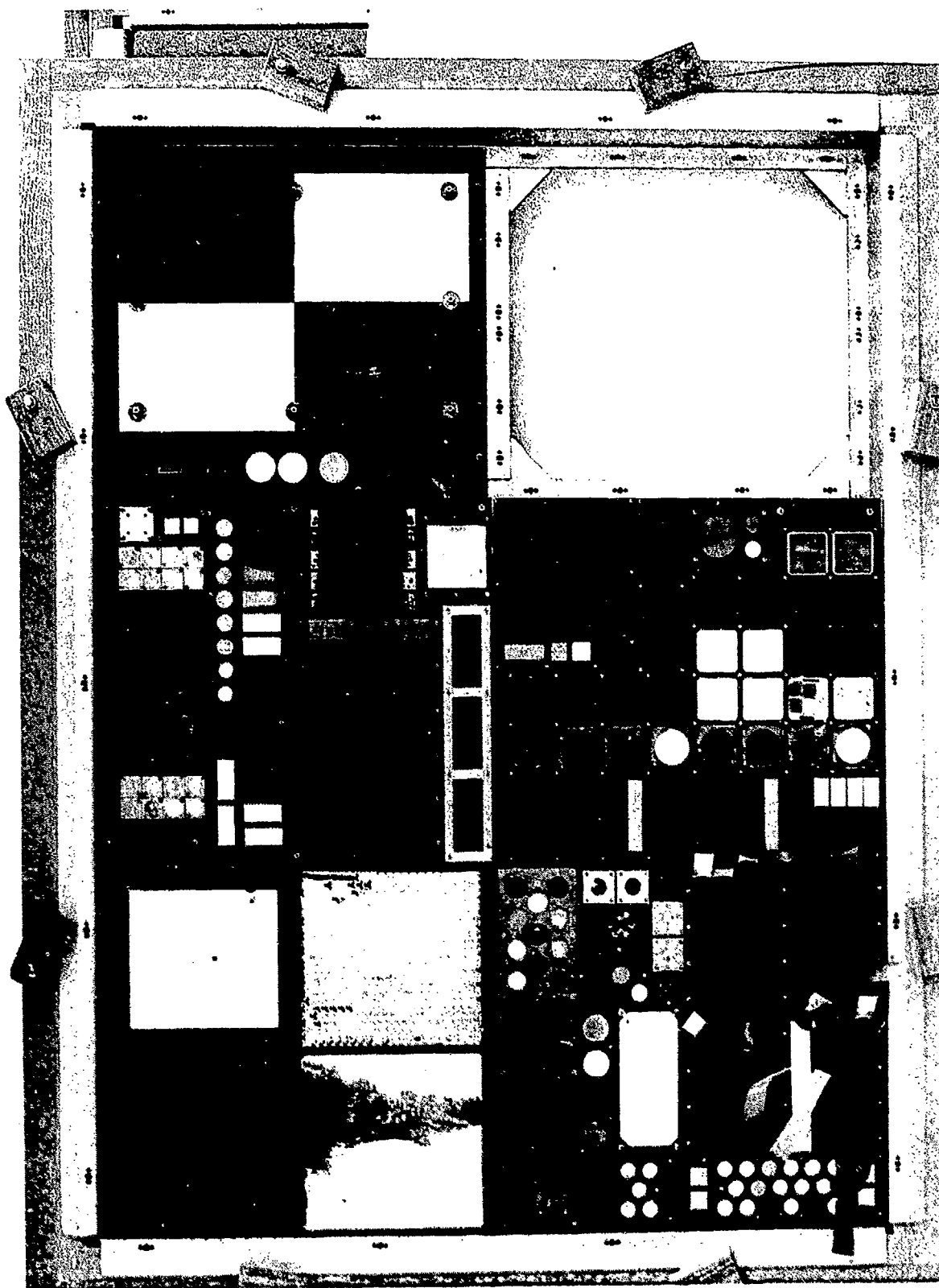
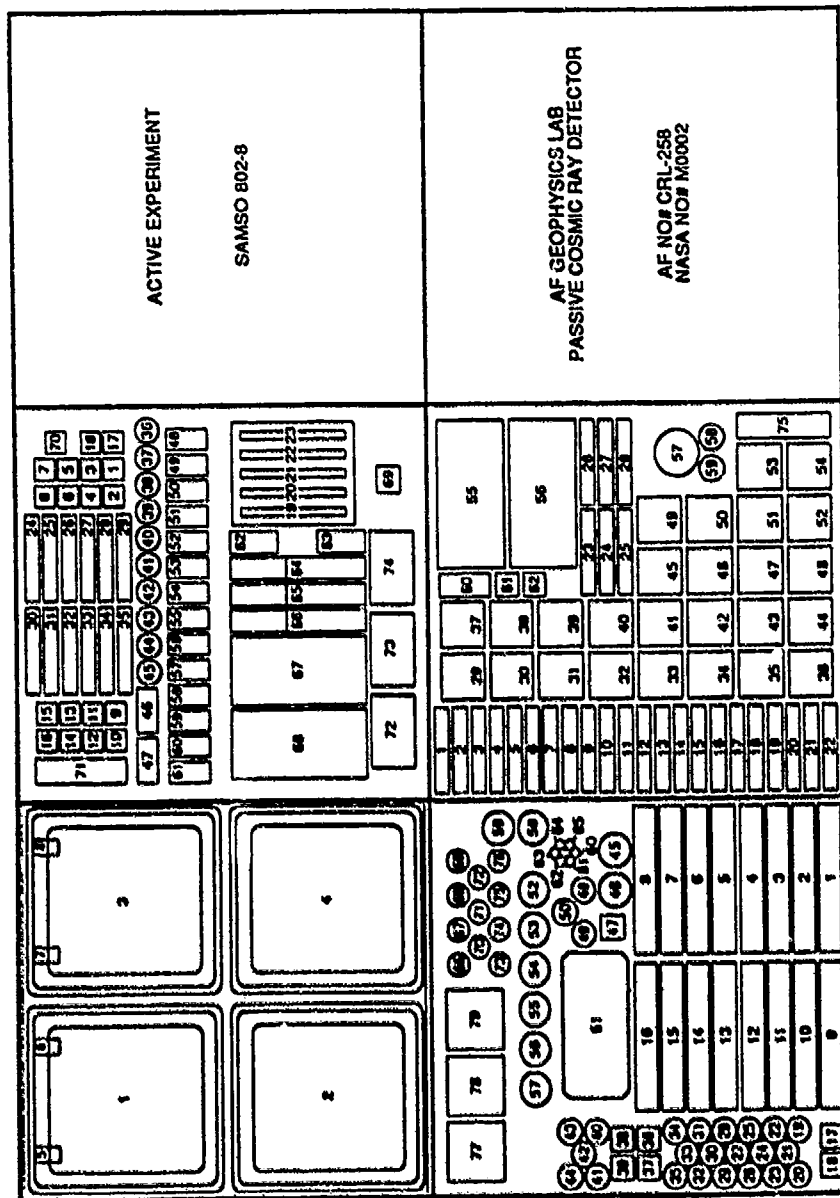


Figure 8. Post-flight photograph of the leading edge 3-in. tray, D9 (L3).

LEADING EDGE 3-INCH TRAY D9-L3

I	IV	V
II	III	VI

D8 (side adjacent to D8)



D10 (side adjacent to D10)

Figure 9. Diagram of sample layout on leading edge 3-in. tray, D9 (L3).

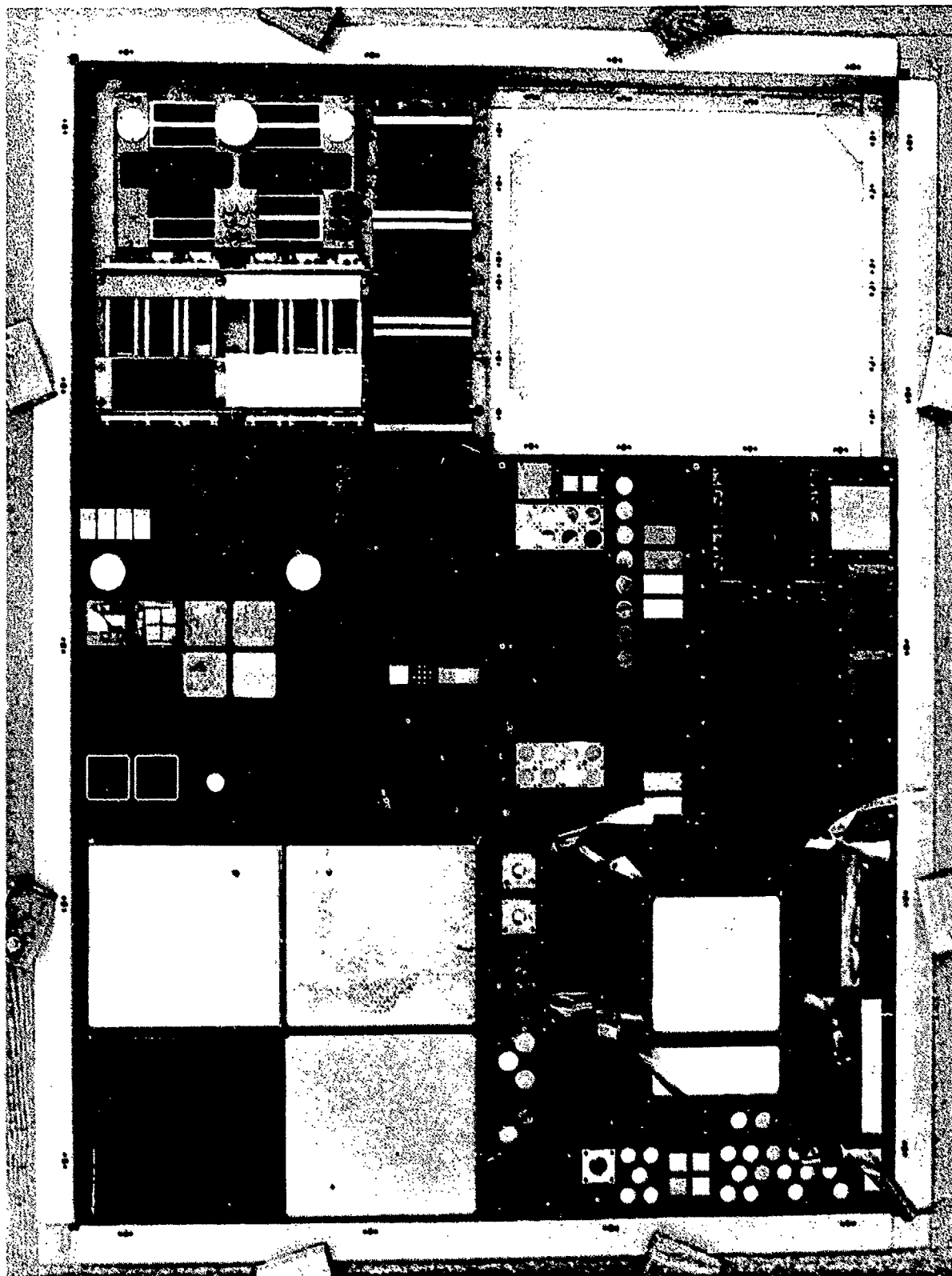
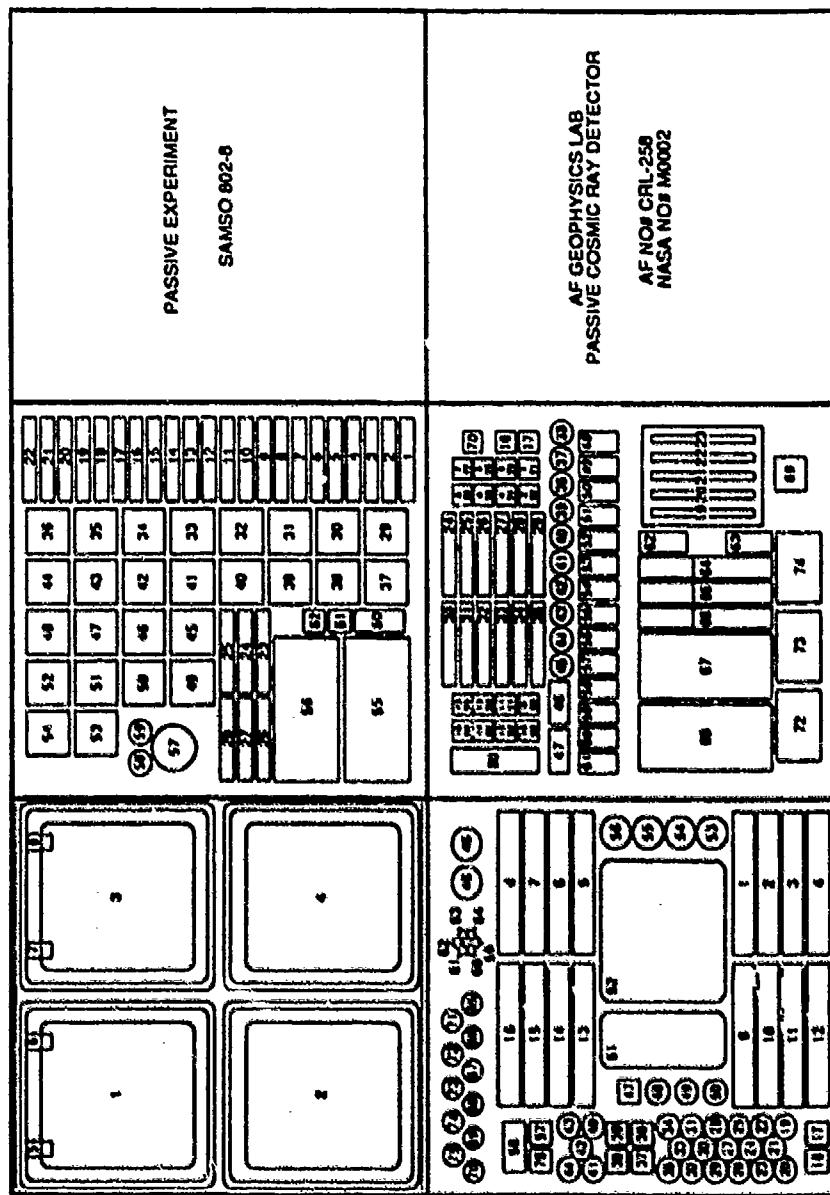


Figure 10. Post-flight photograph of the trailing edge 3-in. tray, D3 (T3)

TRAILING EDGE 3-INCH TRAY D3-T3

I	III	V
II	IV	VI

D2 (side adjacent to D2)



D4 (side adjacent to D4)

Figure 11. Diagram of sample layout on trailing edge 3-in. tray, D3 (T3).

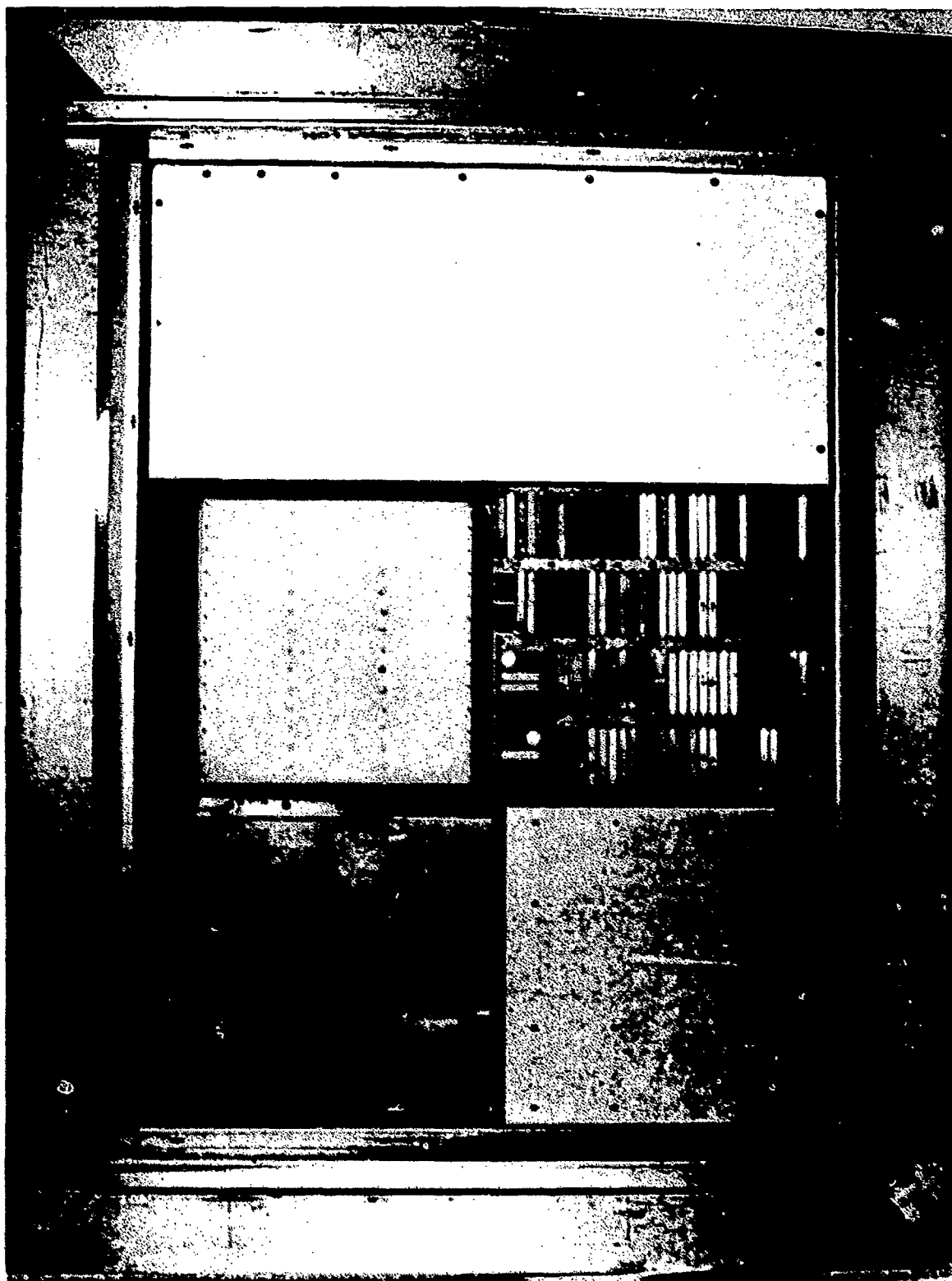


Figure 12. Post-flight photograph of the leading edge 6-in. tray, D8 (L6).

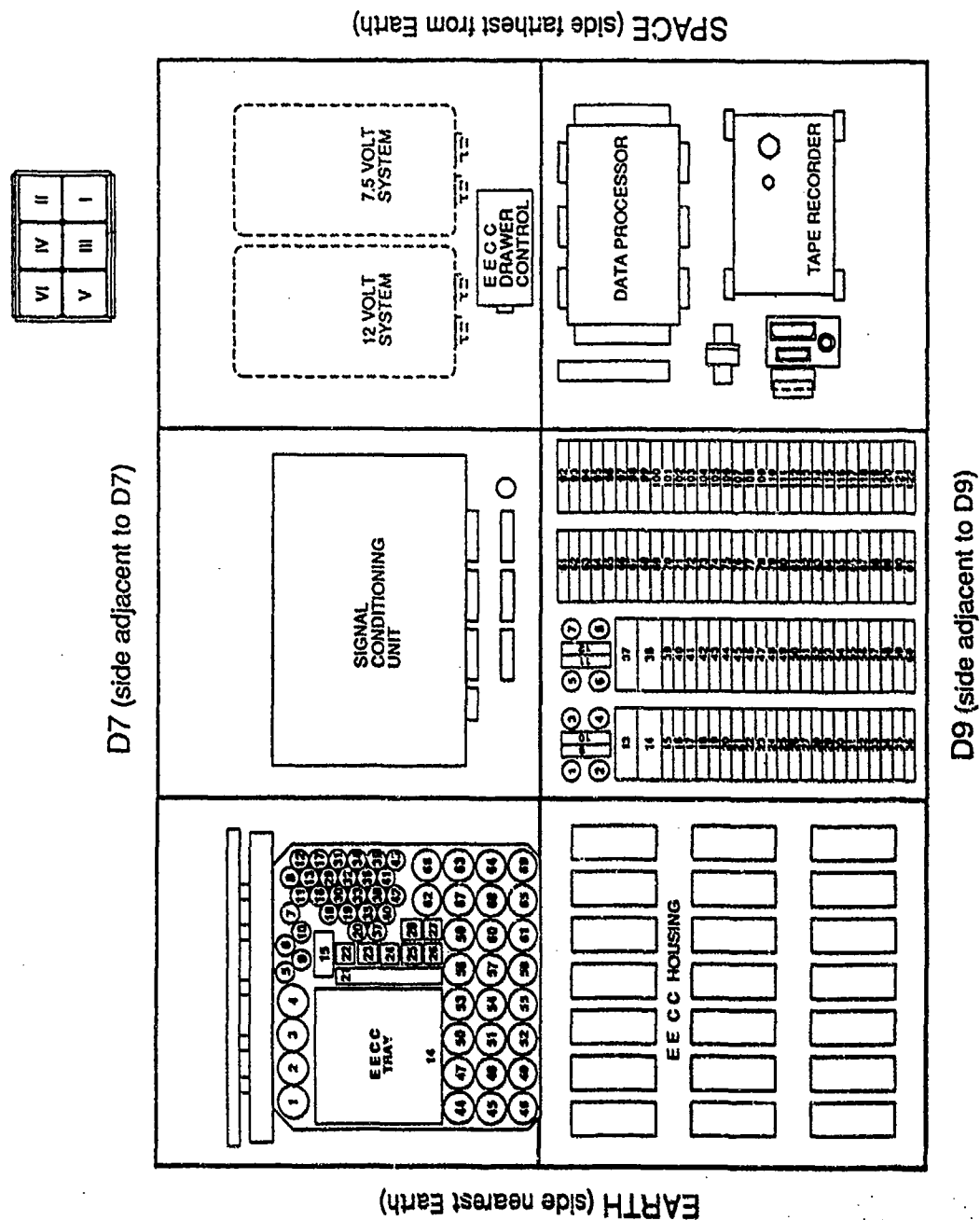


Figure 13. Diagram of sample layout of the leading edge 6-in. tray, D8 (L6).

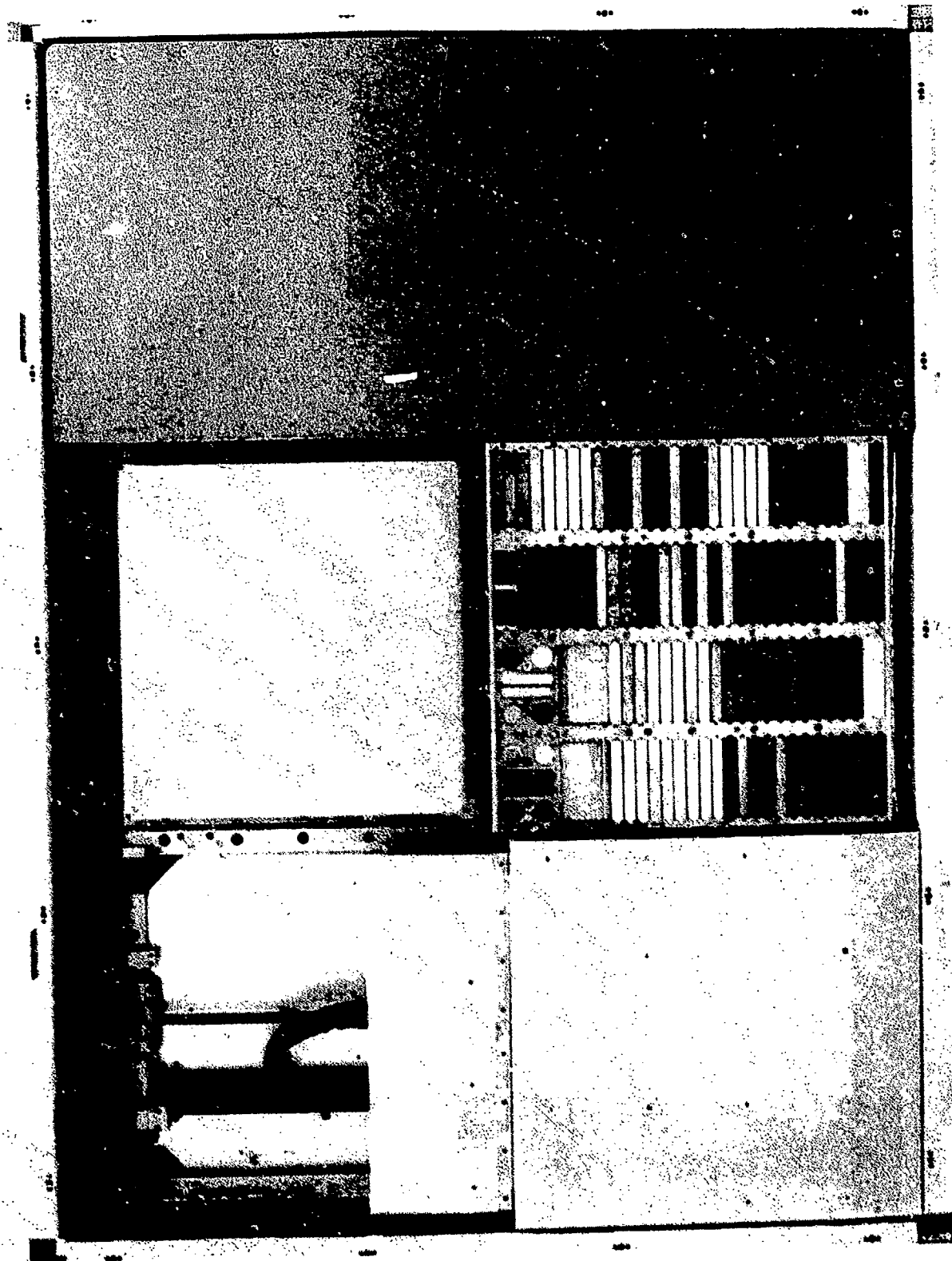
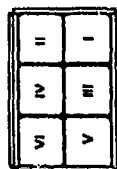
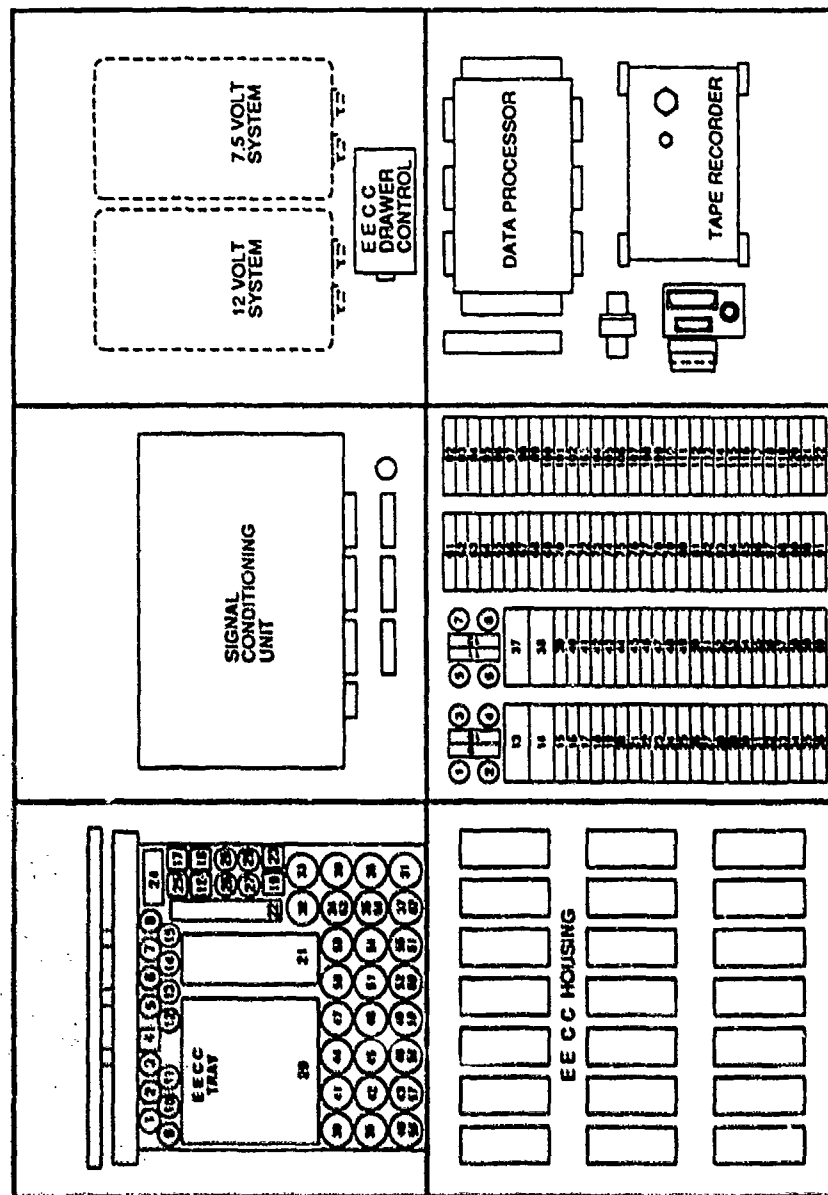


Figure 14. Post-flight photograph of the trailing edge 6-in. tray, D4 (T6).

TRAILING EDGE 6-INCH TRAY D4-T6



D3 (side adjacent to D3)



D5 (side adjacent to D5)

Figure 15. Diagram of sample layout of the trailing edge 6-in. tray, D4 (T6).

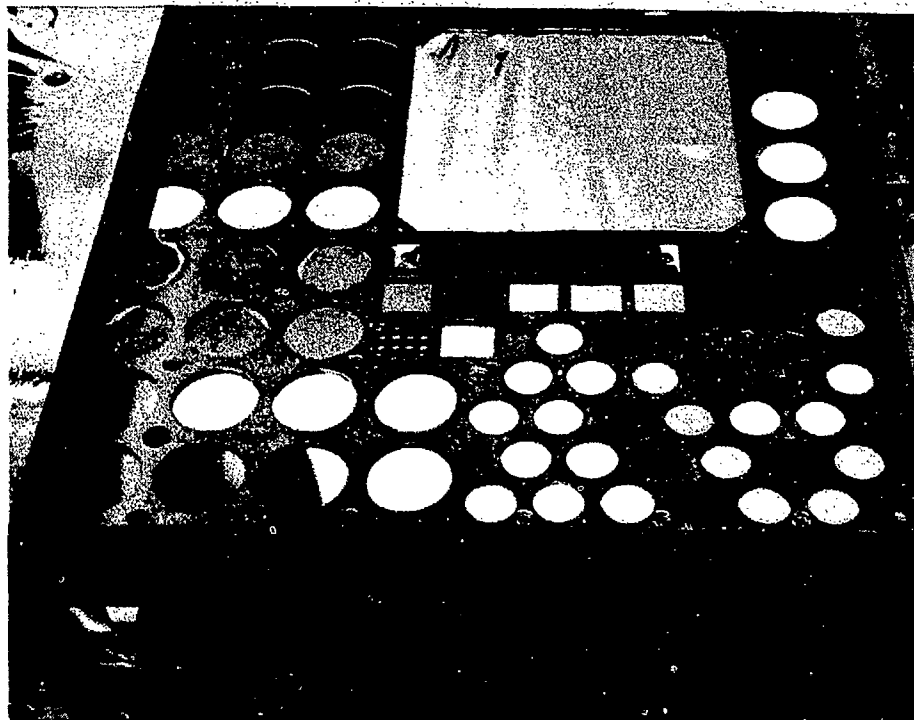


Figure 16. Post-flight photograph of open leading edge canister (Tray D8, Module VI).

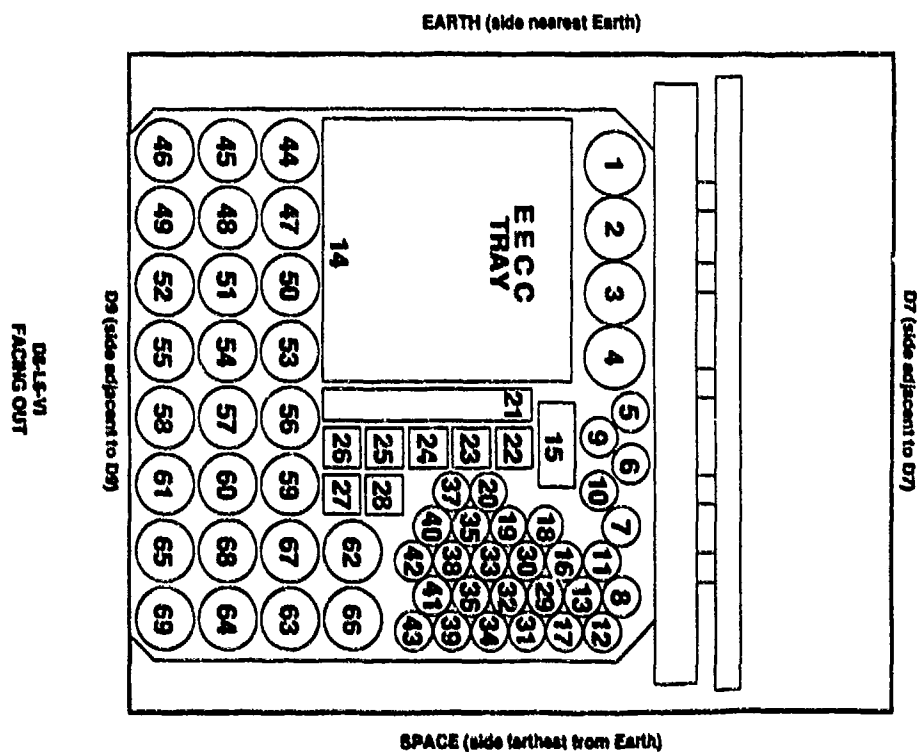


Figure 17. Diagram of sample layout on leading edge canister (Tray D8, Module VI).

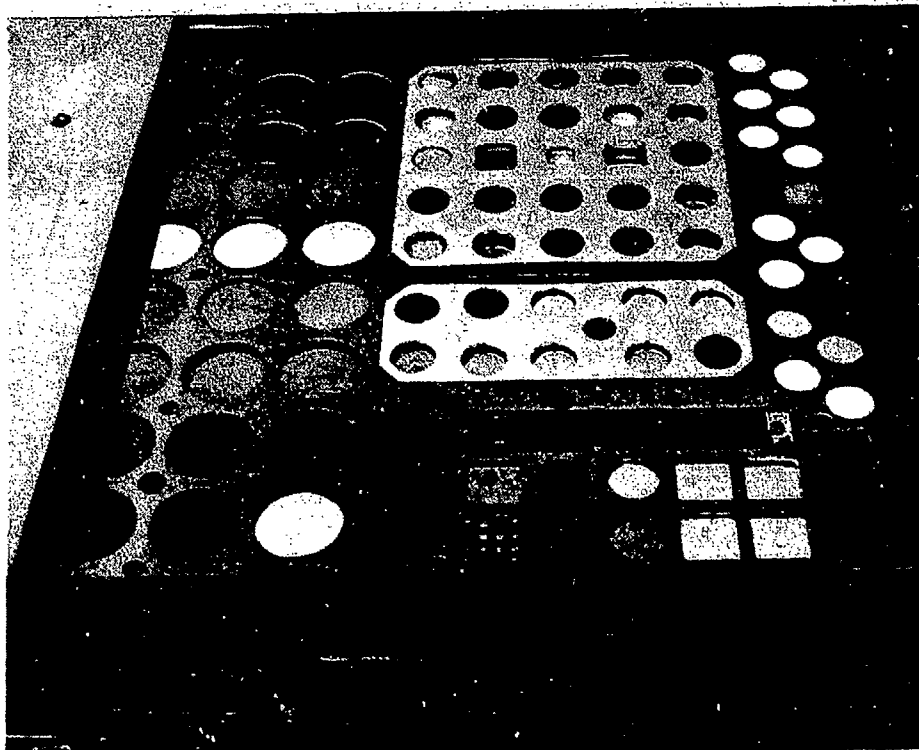


Figure 18. Post-flight photograph of open trailing edge canister (Tray D4, Module VI).

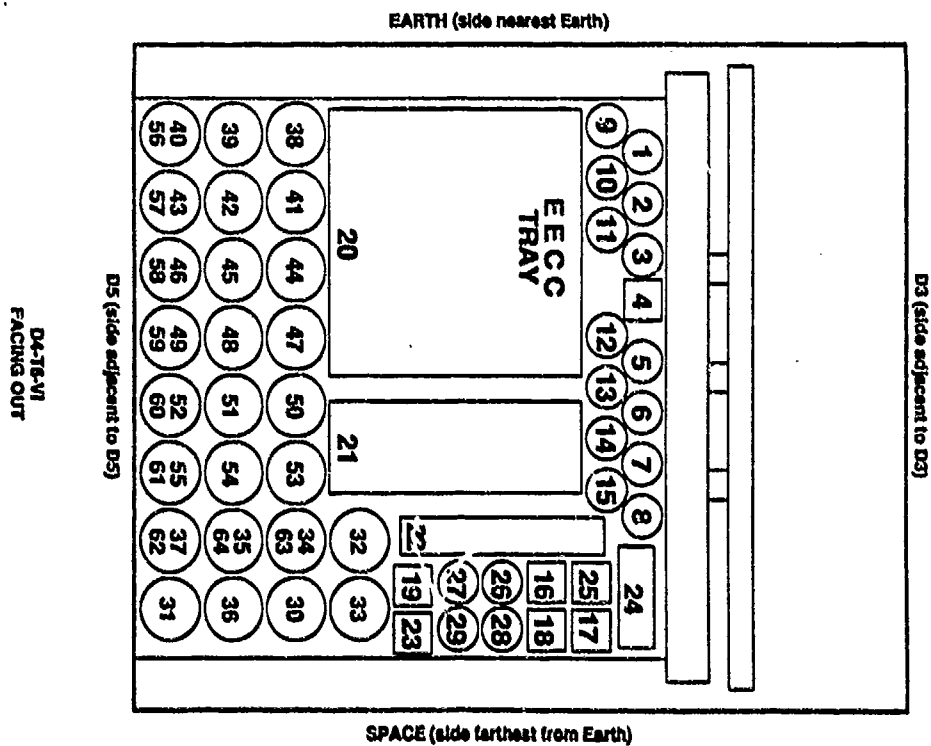


Figure 19. Diagram of sample layout on trailing edge canister (Tray D4, Module VI).



Figure 20. View of two hypervelocity particle impacts to the Chemglaze A276-painted sunshield on leading edge Tray D4 (L6). The puncture is 2.5mm in diameter. The second impact created a small crater surrounded by an exfoliated zone in the atomic oxygen-eroded paint.

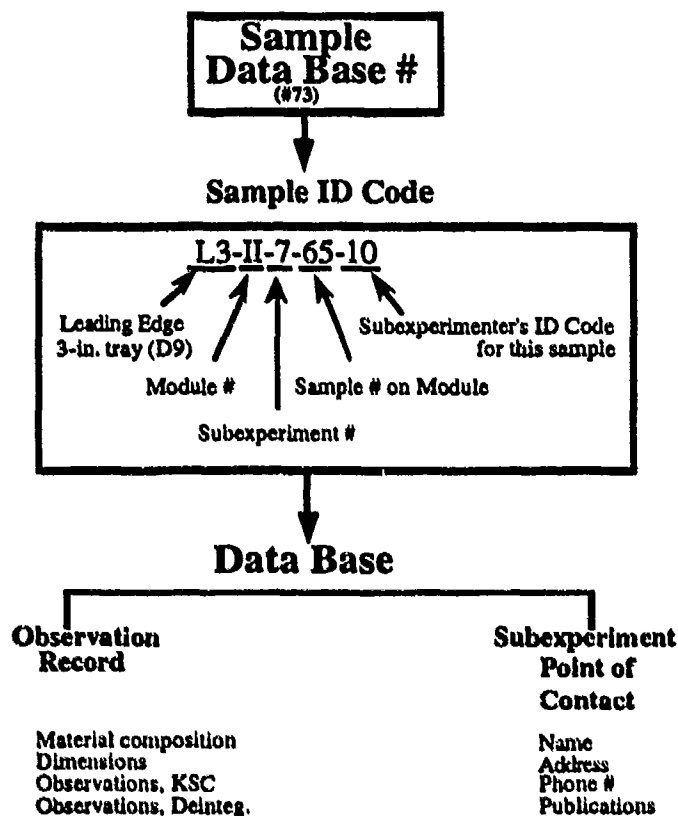
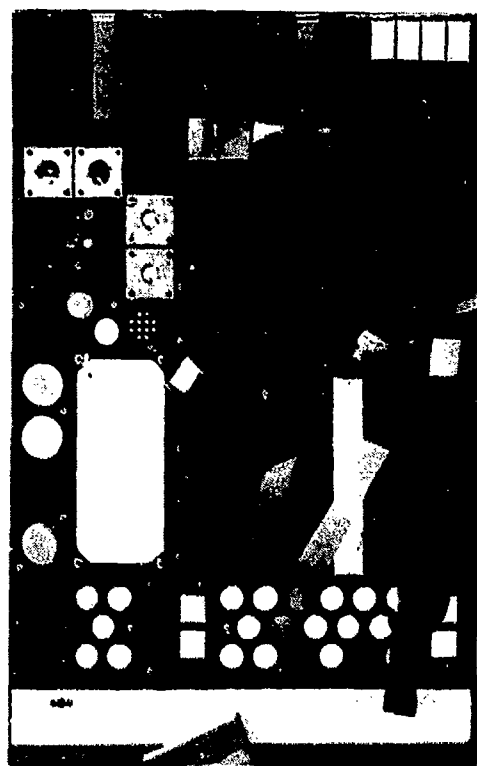
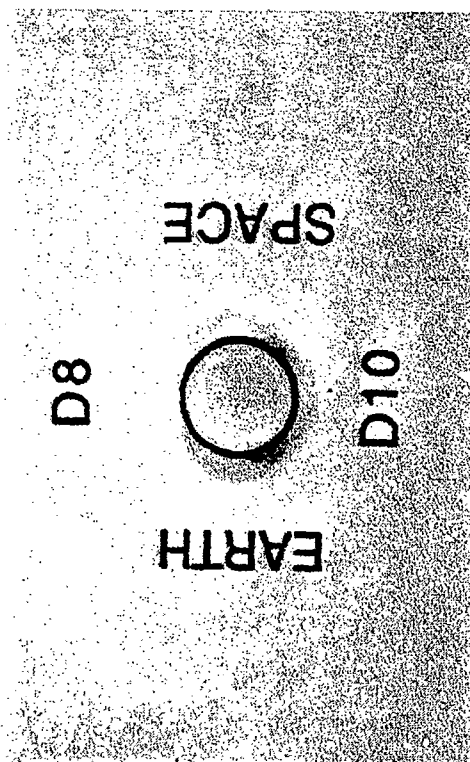


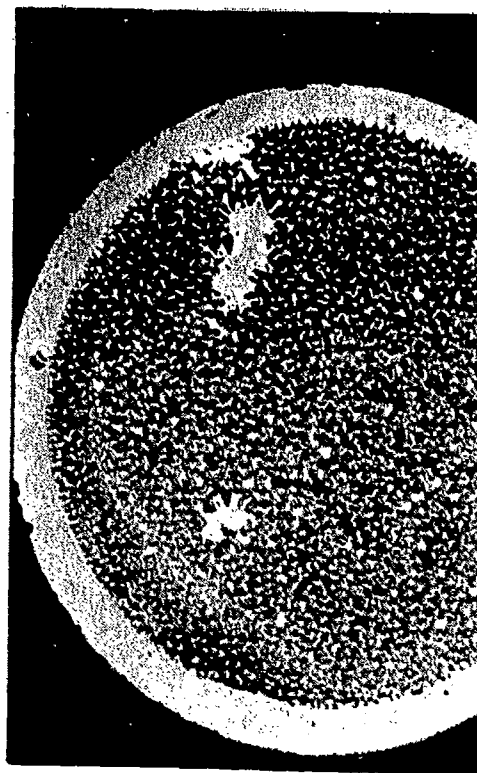
Figure 21. Diagram of M0003 database.



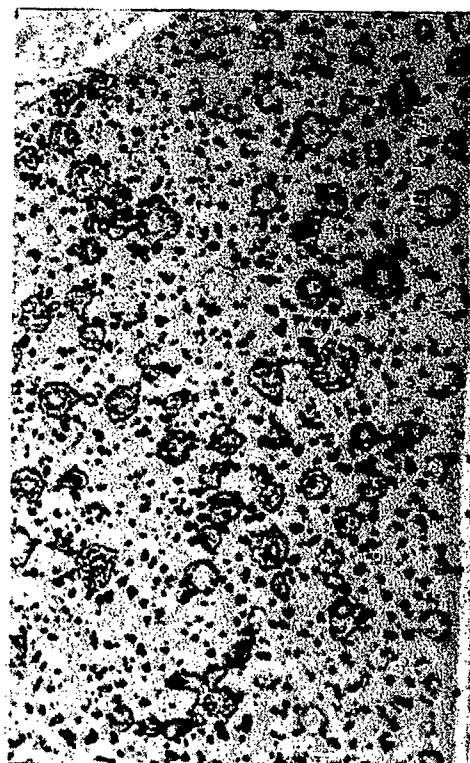
A



B



C



D

Figure 22. Examples of macrographs and micrographs that can be ordered from archives.
 View A. Macrograph of Module II on Tray D9 (DB#73 residues on this module).
 View B. Sample macrograph of DB#73 (L3II-7-65-10, ZnS coating on fused silica 375 in. dia.).
 View C. Low magnification micrograph of buckled coating on surface of DB#73.
 View D. High magnification micrograph of annular features on buckled coating on DB#73.

LDEF M0003 Sample Observation

Sample ID: L311-7-65-10

Database #: 73

Tray: D9

Module: II

Experiment: 7

Description: ZnS coating on SiO₂ substrate

Width: 0.375

Exposure: 69 months

Post-flight Condition:

Length

Buckled (+), delaminated

Thickness 0.100

Category: Coating, glass

Subcategory: Coated substrate

Application: Optics

Observations at KSC Before De-Integration:

SURFACE CRACKED, FLAKING

Observations at The Aerospace Corporation:

Date Tuesday, May 15, 1990

The exposed coating appears uniformly buckled; some areas have buckled so severely that the coating has flaked. In the flaked areas, the residual surface (the substrate) is smooth. Another phase appears to have nucleated on the top of the buckled surface. This phase is manifested, in various stages of formation, as crescent-, ring- or circular-shaped features on the surface.

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Publications:

1. T. M. Donovan, J. M. Bennett, and S. Gyetvai, "Space Environmental Effects on Coated Optics," Proceedings of the First Post-Retrieval Symposium, Kissimmee, FL, June 2-8, 1991, NASA Conference Publication 3134, Part 3

**Mechanics and Materials Technology Center
THE AEROSPACE CORPORATION**



Figure 23. Example of hard copy database observation record (DB#73).

APPENDIX A

M0003 DATABASE CONTENTS LIST

DB#	Sample ID	Description	Post-Treatment Condition
1	L31-1-1-C	Resonant reflector	Eroded (+), cratered
2	L31-1-2-D	Circuit analog sheet	Discolored (+), cratered
3	L31-1-3-A	Capacitive grid	Eroded (+), cratered
4	L31-1-4-B	Resonant window	Eroded (+), cratered
5	L31-9-5 CW1	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
6	L31-9-6-CW2	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
7	L31-9-7 CW3	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
8	L31-9-8 CW4	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag-plated stainless steel hardware	Unchanged
9	L311 5 1 C1	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Embrittled, eroded, crazed, cratered
10	L311 5 2 C2	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Embrittled, eroded, crazed, flaked
11	L311 5 3 C3	Kapton/Al, 1 mil, Sheldahl	Eroded, cratered
12	L311 5 4 C4	Kapton/Al, 5 mil, Sheldahl	Eroded, embrittled
13	L311 5 5 C5	Teflon FEP type A, 5 mil	Eroded, embrittled
14	L311 5 6 C6	Teflon FEP/Ag/Inconel (5 mil)/Eccobond 57C/Kapton (5 mil)	Eroded, crazed, flaked
15	L311 5 7 C7	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
16	L311 5 8 C8	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
17	L311 5 9 C9	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
18	L311 5 10 C10	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
19	L311 5-11-C11	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Eroded, crazed, flaked
20	L311 5 12 C12	Teflon FEP/Ag/Inconel (5 mil)/NATO IIC/Kapton 8 5 mil	Eroded, crazed, flaked
21	L311 5-13-C13	Nylon 6/6, 5 mil	Eroded, contaminated (particle), cratered
22	L311 5 14 C14	Tetzel 509AE, 5 mil	Eroded, embrittled
23	L311 5 15 C15	Polycarbonate, 5 mil	Eroded, embrittled, cratered
24	L311 5 16 C16	Polyphenylsulfone R 5000, 10 mil, Union Carbide	Eroded, embrittled, contaminated (stain), cratered
25	L311 5-17-B1	Optical Solar Reflector, OCLU SI-100	Corroded, contaminated (particle)
26	L311 5 18 B2	Optical Solar Reflector, OCLU SI-100 with conductive coating	Hazed, corroded, cratered
27	L311 5 19 A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	Unchanged
28	L311 5 20-A2	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Eroded
29	L311 5 21 A3	Porcelain enamel on Al, NASA Marshall Space Flight Center	Discolored (-)
30	L311 5 22 A4	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Textured
31	L311 5 23 A5	Black paint, D111, IITRI	Crazed, contaminated (particle)
32	L311 5 24 A6	7 µm quartz fabric chemical and heat cleaned (+ 450 °C), adhesive bond/Al, General Electric	Unchanged
33	L311 5-25-A7	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Eroded (+)
34	L311 5 26-A8	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Eroded
35	L311 5-27-A9	In2O3/Teflon FEP/Ag/Inconel, 5 mil, General Electric	Microfractured
36	L311 5 28-A10	Kapton/Al, 1 mil, Sheldahl	Eroded
37	L311 5 29-A11	Kapton/Al, 5 mil, Sheldahl	Eroded
38	L311 5-30 A12	In2O3/Kapton/Al, 5 mil, General Electric	Unchanged
39	L311 5-31-A13	White paint, Z93, IITRI	Cratered
40	L311 5 32 A14	White paint, S13GLO, IITRI	Discolored (-)

OBS	Sample ID	Description	Post-Flight Condition
41	L311-5-33-A15	White paint. YB-71. IITRI	Crazed, whiskered
42	L311-5-34-A16	White paint. NS 43G. NASA Goddard Space Flight Center	Discolored (-), crazed
43	L311-5-35-A17	White paint. Eu2O3/RTV 602. ML101. Air Force Materials Laboratory	Unchanged
44	L311-5-36-B3	Au mirror/Al	Unchanged
45	L311-5-37-B4	Al mirror/glass	Buckled, flaked
46	L311-5-38-B5	Ag mirror/Al	Corroded (+)
47	L311-5-39-B6	Ag mirror/Al	Corroded (+), cratered
48	L311-5-40-A18	White paint alpha-AI2O3/RTV 602. ML101 Air Force Materials Laboratory	Discolored (+)
49	L311-5-41-A19	White paint PV100 TiO2/silicone resin. ML101 Air Force Materials Laboratory	Unchanged
50	L311-5-42-A20	White paint TiO2/RTV 602. ML101 Air Force Materials Laboratory	Discolored, crazed
51	L311-5-43-A21	White paint DC92 007 TiO2/RTV 3140. Rockwell Int	Discolored (+), crazed
52	L311-5-44-A22	White paint DC92 007 TiO2/RTV 3140. Rockwell Int	Discolored (+), crazed
53	L311-14-45-12	Coated quartz crystal microbalance (OCM) active. 150A In2O3/9000A Al+Al2O3	Hazed, cratered
54	L311-14-46-6	Coated quartz crystal microbalance (OCM) passive. 150A ZnS/9000A Al+Al2O3	Hazed, cracked, cratered
55	L311-12-47-1	Thermoluminescent dosimeter. LiF	Cratered
56	L311-11-48-BG01	Low scatter black glass	Discolored, hazed, cratered
57	L311-11-49-S07	Aluminized fused silica mirror	Contaminated (particle) cratered
58	L311-11-50-N01	Low scatter nickel mirror	Hazed, corroded
59	L311-6-51-V	Ag/Teflon FEP covered cassette holding 9 laser communication detectors	Cover eroded, distorted, cratered
60	L311-2-52-006	Fused SiO2	Cratered
61	L311-2-53-010	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed (+), cratered
62	L311-2-54-N18A	Polished molybdenum	Oxidized (+), hazed, cratered
63	L311-2-55-N24B	ThF4/Ag/Cr coating lambda (1 06)/2 thick/ molybdenum substrate	Blistered, flaked, cratered
64	L311-2-56-8688	Diamond-turned copper	Oxidized (+)
65	L311-2-57-10	Diamond turned nickel coated copper	Corroded, hazed
66	L311-4-58-SC1	Solar cell coating	Microfractured, cratered
67	L311-4-59-SC2	Solar cell coating	Cracked, cratered
68	L311-7-60-1	Al2O3 coating on SiO2 substrate	Microfractured (-), wrinkled, cratered
69	L311-7-61-3	Si coating on SiO2 substrate	Microfractured (-), cratered
70	L311-7-62-5	NaF coating on SiO2 substrate	Microfractured (+), cratered
71	L311-7-63-6	ThF4 coating on SiO2 substrate	Microfractured (+), cratered
72	L311-7-64-9	SiOx coating on SiO2 substrate	Microfractured (-), cratered
73	L311-7-65-10	ZnS coating on SiO2 substrate	Buckled (+), delaminated
74	L311-15-66-A1	Rhodium foil bonded with DC 6-1104 to aluminum substrate	Hazed, contaminated (particle)
75	L311-15-67-B1	Iridium foil bonded with DC 6-1104 to aluminum substrate	Contaminated (particle)
76	L311-15-68-C1	Polished molybdenum mirror	Discolored, contaminated (stain, particle)
77	L311-15-69-D1	Sputtered black rhodium coating on polished molybdenum substrate	Cratered
78	L311-15-70-E1	Sputtered black iridium coating on polished molybdenum substrate	Crazed, flaked, cratered
79	L311-15-71-F1	Black chrome coating on molybdenum substrate	Cracked, flaked
80	L311-18-72-G1	White thermal control paint. YB-71/Al. IITRI	Crazed

DBs	Sample ID	Description	Post-Flight Condition
81	L311 18 73-H1	Black thermal control paint. D111/A1. NTRI	Bleached, crazed, flaked, cratered
82	L311 18-74 I	ZnSe crystal	Discolored, cratered, contaminated (particle)
83	L311 18 75-J	Polyphenylquinoxaline (PPO) film on Al	Eroded
84	L311 15 76 k	Sputtered black rhodium coating on molybdenum substrate	Crazed, flaked, contaminated (stain), cratered
85	L311 15 77 L1	Sputtered black chrome coating on molybdenum substrate	Oxidized, flaked, cratered
86	L311 15 78 M1	Black glass coating on molybdenum substrate	Oxidized, flaked, cratered
87	L311 15 79 N1	Sputtered black chrome coating on molybdenum substrate	Oxidized, flaked
88	L311 9 1 CM2b	GY70/CE 399 (0/90)2/0)4T 250 F	Eroded
89	L311 9 2 CM4a	GY70/CE 339 (0/2/90)2)T 250 F	Eroded
90	L311 9 3 CM6b	T50 F263 (0/90)2/0)4T 350 F	Eroded, cratered
91	L311 9 4 CM8a	T50 F263 (0/2/90)2)T 350 F	Eroded, cratered
92	L311 9 5 CM10c	T 50 (PAN)/934(0/90)2/0)4T 350 F	Eroded, cratered
93	L311 9 6 CM14a	T 50 (PAN)/X904B 10(90)2/0) 4T 350 F	Eroded, contaminated (stain)
94	L311 9 7 CM18a	T 50(PAN)/E788(0/90)2/0)4T 350 F	Eroded, cratered
95	L311 9 8 CM42b	Kevlar/epoxy K49 fabric/X904B (0/2/90)2)T 350 F	Eroded
96	L311 9 9 CM44a	T-50/F263 (0/90)2/0)4T 300 F	Eroded
97	L311 9 10 CM30b	Celion 6000/E788(0/90)2/0)4T 350 F	Eroded, cratered
98	L311 9 11 CM3a	GY70/CE 399 (0/45/1 45)2/0)4T 250 F	Eroded, cratered
99	L311 9 12 CM7a	T50/F263 (0/45/1 45)2/0)4T	Eroded
100	L311 9 13 CM11c	T 50 (PAN)/934/0/45/1 45)2/0)4T 350 F	Eroded
101	L311 9 14 CM15d	T 50(PAN)/X904B-10(0/45/1 45)2/0)4T 350 F	Eroded, cratered
102	L311 9 15 CM19a	T 50(PAN)/E788(0/45/1 45)2/0)4T 350 F	Eroded, contaminated (particle)
103	L311 9 16 CM38c	KEVLAR/epoxy 49 fabric/X904B (0/45)4S 350 F	Eroded, contaminated (particle), cratered
104	L311 9 17 CM45d	T 50/F263 (0/45/1 45)2/0)4T 300 F	Eroded
105	L311 9 18 CM31d	Celion 6000/E788(0/45/1 45)2/0)4T 350 F	Eroded, cratered
106	L311 9 19 AB1 2	HMF 330C/934-2024-HMF 300C/934 (9628). 250 F	Eroded, cratered
107	L311 9 20 AB1 5	HMF 330C/934-2024-HMF 330C/934 (9628). 250 F	Eroded, cratered
108	L311 9 21 AB1 7	HMF 330C/934-2024-HMF 330C/934 (9628). 250 F	Eroded, cratered
109	L311 9 22 AB1 9	HMF 330C/934 2024-HMF 330C/934 (9628). 250 F	Eroded
110	L311 9 23 CM12	T 50(PAN)/934 (0/2/90)2)T 350 F	Eroded
111	L311 9 24 CM16	T 50(PAN)/X904B-10(0/2/90)2)T 350 F	Eroded, distorted, cratered
112	L311 9 25 CM20	T 50(PAN)/E788(0/2/90)2)T 350 F	Eroded, distorted
113	L311 9 26 CM28	HMS/3501 5A(0/2/90)2)T 290 F	Eroded, cratered
114	L311 9 27 CM46	T50/F263 (0/2/90)2)T 300 F	Eroded, distorted, cratered
115	L311 9 28 CM32	Celion 6000/E788(0/2/90)2)T 350 F	Eroded, distorted
116	L311 9 29 AM1E	Gold-plated woven Dacron mesh	Eroded, cratered
117	L311 9 30 AM2E	Gold-plated knitted Dacron mesh	Eroded
118	L311 9 31 AM3E	Plastic-metal mesh laminate	Eroded
119	L311 9 32 AM4E	Solid plastic-metal laminate	Eroded, cratered
120	L311 9 33 AM1A	Gold-plated woven Dacron mesh	Eroded

Post-Flight Condition

DBs	Sample ID	Description	Post-Flight Condition
121	L3111 9 34 AM2A	Gold-plated knitted Dacron mesh	Eroded
122	L3111 9 35 AM3B	Plastic metal mesh laminate	Eroded, cratered
123	L3111 9 36 AM4D	Solid plastic metal laminate	Eroded, cratered
124	L3111 3 37 III	Graphite polyamide	Eroded, contaminated (particle)
125	L3111 3 38 III	Graphite polyamide	Eroded, cratered
126	L3111 3 39 VI	Special carbon/tungsten bearing resin	Eroded, cratered
127	L3111 3 40 VI	Special carbon/tungsten bearing resin	Eroded, cratered
128	L3111 3 41 IIIA	Aluminum 2024 AlCu alloy	Discolored, cratered
129	L3111 3 42 IIIA	Aluminum 2024 AlCu alloy	Discolored, cratered
130	L3111 15 43 A 00	Anodized aluminum mounting plate with MOS devices	Discolored, cratered
130 01	L3111 19 43 A 01	MOS Device	Eroded, contaminated (particle), cratered
130 02	L3111 19 43 A 02	MOS Device	Eroded, contaminated (particle)
130 03	L3111 19 43 A 03	MOS Device	Discolored, contaminated (particle), cratered
130 04	L3111 19 43 A 04	MOS Device	Discolored, contaminated (particle), cratered
130 05	L3111 19 43 A 05	MOS Device	Discolored, contaminated (particle), cratered
130 06	L3111 19 43 A 06	MOS Devices	Discolored, contaminated (particle), cratered
130 07	L3111 19 43 A 07	MOS Devices	Discolored, contaminated (particle), cratered
130 08	L3111 19 43 A 08	MOS Device	Discolored, contaminated (particle), cratered
130 09	L3111 19 43 A 09	MOS Device	Discolored, contaminated (particle), cratered
130 10	L3111 19 43 A 10	MOS Devices	Discolored, contaminated (particle), cratered
131	L3111 19 44 B 00	Anodized aluminum mounting plate with GaAs FETs bulk GaAs	Contamination (particle), cratered
131 01	L3111 19 44 B 01	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 02	L3111 19 44 B 02	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 03	L3111 19 44 B 03	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 04	L3111 19 44 B 04	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 05	L3111 19 44 B 05	GaAs FETs bulk GaAs	Contaminated (particle)
131 06	L3111 19 44 B 06	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 07	L3111 19 44 B 07	GaAs FETs bulk GaAs	Corroded, contaminated (particle)
131 08	L3111 19 44 B 08	GaAs FETs bulk GaAs	Contaminated (particle)
131 09	L3111 19 44 B 3639A	GaAs FETs bulk GaAs	Contaminated (particle), cratered
131 10	L3111 19 44 B 3639B	GaAs FETs bulk GaAs	Contaminated (particle), cratered
132	L3111 3 45 V	Aluminum 6061-T6	Cratered
133	L3111 3 46 V	Aluminum 6061 T6	Cratered
134	L3111 3 47 VII	Pyrolytic carbon, Pyro-Carb 431	Eroded
135	L3111 3 48 VII	Pyrolytic carbon, Pyro-Carb 431	Eroded
136	L3111 3 49 I	Tape-wrapped carbon phenolic	Eroded, cratered
137	L3111 3 50 I	Tape-wrapped carbon phenolic	Eroded
138	L3111 3 51 IV	Graphite polysulfone	Eroded
139	L3111 3 52 IV	Graphite polysulfone	Eroded, cratered
140	L3111 3 53 II	Three dimensional quartz phenolic	Eroded ()

DB#	Sample ID	Description	Post-Flight Condition
141	L3111 3 54 11	Three-dimensional quartz phenolic	Eroded (-)
142	L3111 8 55 30	Graphite-polymide (HTS 2 unidirectional tape:PMR 15 [0°])	Eroded, cratered
143	L3111 8 55 10	Graphite/epoxy (T 300 unidirectional tape:FBelite EA934 epoxy resin [0°])	Eroded, cratered
144	L3111 8 57 512	Silicon nitride 2 layer sandwich (foam layer 0.45" thick skin layer 0.03" thick)	Contaminated (slain)
145	L3111 8 58 52	Silicon nitride 2 layer sandwich (foam layer 0.45" thick skin layer 0.03" thick)	Contaminated (slain)
146	L3111 11 59 501	Aluminized fused silica mirror	Unchanged
147	L3111 11 60 1	ZnSe infrared plate	Discolored, craters, contaminated (particle)
148	L3111 12 61 2	Thermoluminescent dosimeter: LiF	Discolored
149	L3111 11 62 X	Coating 7940 second surface aluminum mirror	Flashed contaminated (particle) cratered
150	L3111 9 63 CM3D	GY70-CE 3321-45/1 45/2-45/41 250 F	Dulled
151	L3111 9 64 CM2D	T 50-P2631-45/1 45/2-45/41	Discolored
152	L3111 9 65 CM11b	T 50IPANJ 9341-45/1 45/2-45/41 350 F	Discolored (-)
153	L3111 9 66 CM15a	T 50IPANJ/X904B 10(-45/1 45/2-45/41 350 F	Discolored (-)
154	L3111 9 67 CM19D	T 50IPANJ/E 7881-45/1 45/2-45/41 350 F	Discolored (-)
155	L3111 9 68 CM38d	KEVLAR/epoxy K49 14birc/X904B (-45/41S 350 F	Darkened
156	L3111 9 69 CM43c	T 50-P263 (-45/1 45/2-45/41 300 F	Dulled
157	L3111 9 70 CM31c	Celcon 6000-E7881-45/1 45/2-45/41 350 F	Dulled
158	L3111 9 71 AB1 11	HMF 330C-934 2024 HMF 330C-934 (9628) 250 F	Discolored (-)
159	L3111 9 72 AB1 12	HMF 330C-934 2024 HMF 330C-934 (9628) 250 F	Discolored (-)
160	L3111 9 73 AB1 13	HMF 330C-934 2024 HMF 330C-934 (9628) 250 F	Discolored (-)
161	L3111 9 74 AB1 14	HMF 220C-934 2024 HMF 330C-934 (9628) 250 F	Discolored (-)
162	L3111 16 75 E	Composite (unknown thermalins)	Eroded
163	L311V 4 1 1	Standard 350 nm coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
164	L311V 4 2 5	Reflective 350 nm coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
165	L311V 4 3 9	Reflective 350 nm coating/CERIA Delim retainer OCLI	Hazed (+), contaminated (particle) cratered
166	L311V 4 4 13	Reflective 350 nm coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
167	L311V 4 5 17	HEA 31 coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle) cratered
168	L311V 4 6 24	Mark III D coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
169	L311V 4 7 25	Mark III E coating/7940 fused silica Delim retainer OCLI	Microfractured, contaminated (particle)
170	L311V 4 8 29	Contamination coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
171	L311V 4 9-33	Erosion coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
172	L311V 4 10 37	Erosion coating/7940 fused silica Delim retainer OCLI	Hazed (+), contaminated (particle)
173	L311V 4 11 41	Mark IV coating/7940 fused silica Delim retainer OCLI	Hazed, contaminated (particle) cratered
174	L311V 4 12 45	Contamination coating/7940 fused silica Delim retainer OCLI	Contaminated (particle) cratered
175	L311V 4 13 49	7070 fused silica Delim retainer OCLI	Eroded, cratered
176	L311V 4 14 52	7940 fused silica Delim retainer OCLI	Hazed, contaminated (particle) cratered
177	L311V 4 15 57	7940 fused silica Delim retainer OCLI	Delaminated
178	L311V 4 16 61	Cena Delim retainer OCLI	Contaminated (particle) cratered
179	L311V 18 17 1	White thermal control paint. S13CLO:6061 AL HTM	Contaminated (particle)
180	L311V 18 18 2	White thermal control paint. S13CLO:6061 AL HTM	Discolored (-), crazed

DBs	Sample ID	Description	Post-Flight Condition
181	L31V 4-19-A	HESP II silicon cells. 5 cell string	Microfractured, cratered
182	L31V 4-20-GA1	HESP II Ga As cells. 5 cell string	Microfractured, debonded, cratered
183	L31V 4-21-VJ1	Vertical junction silicon cells. 5 cell string	Microfractured, cratered
184	L31V 4-22-B	High performance silicon cells. 5 cell string	Microfractured, cratered
185	L31V 4-23-X3	Conventional silicon cells. 5 cell string	Microfractured, debonded, contaminated (stain)
186	L31V 9 24-CM1b	GY70/CE 339. ((0)16)T. 250°F	Oxidized, cratered
187	L31V 9 25-CM5a	T 50/F263 ((0)16)T. 350 F	Eroded
188	L31V 9 26-CM9a	T 50(PAN)/934 ((0)16)T. 350 F	Eroded
189	L31V 9 27-CM13b	T 50(PAN)/X904B 10 ((0)16)T. 350 F	Eroded
190	L31V 9 28-CM17a	T 50 (PAN)/E788 ((0)16)T. 350 F	Eroded contaminated (particle) cratered
191	L31V 9 29-CM34c	HMF 176/34 fabric (+45)4S. 350 F	Eroded
192	L31V 9 30-CM43a	T 50/F263 ((0)4)T. 300 F	Eroded, cratered
193	L31V 9 31-CM29a	Celion 6000/E788 ((0)16)T. 350 F	Eroded, cratered
194	L31V 9 32-CM33a	HMF176/34 fabric ((0)16)T. 350°F	Eroded
195	L31V 9 33-CM41b	HMF 176/34 fabric ((0)2(90)2)T. 350 F	Eroded, cratered
196	L31V 9 34-CM37a	KEVLAR/epoxy K49 fabric/X904B ((0)16)T. 350 F	Eroded
197	L31V 9-35-CM39	E glass fabric/CE-339 ((0)16)T. 250 F	Eroded
198	L31V 9-36-TC9	Coated molybdenum foil/1 4μ SiO2	Contaminated (stain), cratered
199	L31V 9-37-TC9	Coated molybdenum foil/1.4μ SiO2	Contaminated (particle), cratered
200	L31V 9 38-TC10	Coated molybdenum foil/ P238 filter (Al2O3)	Corroded
201	L31V 9 39-TC10	Coated molybdenum foil/ P238 filter (Al2O3)	Corroded, cratered
202	L31V 9 40-TC11	Coated molybdenum foil/ Si3N4	Hazed, cratered
203	L31V 9-41-TC11	Coated molybdenum foil/ Si3N4	Microfractured, cratered
204	L31V 9-42-TC12	Polyurethane white paint Chemglaze A276/II	Eroded, discolored
205	L31V 9-43-TC12	Polyurethane white paint Chemglaze A276/II	Eroded, discolored, cratered
206	L31V 9 44-TC13	Polyurethane black paint. Chemglaze Z306	Bleached
207	L31V 9-45-TC13	Polyurethane black paint. Chemglaze Z306	Bleached, cratered
208	L31V 9-46-TC1	Teflon FEP polymer coating Spraylon 7075	Eroded, cratered
209	L31V 9 47-TC1	Teflon FEP polymer coating Spraylon 7075	Eroded
210	L31V 9-48-TC2	Silicone paint black vacuum distilled RTV 602	Embrittled, contaminated (stain), cratered
211	L31V 9-49-TC2	Silicone paint black vacuum distilled RTV 602	Embrittled, contaminated (stain), cratered
212	L31V 9-50-TC3	White silicone high temperature paint Sporex AP-101	Discolored (+), cratered
213	L31V 9-51-TC3	White silicone high temperature paint Sporex AP-101	Discolored (+)
214	L31V 9-52-TC6	Ceramic coating white borated silica	Discolored, cracked, contaminated (particle)
215	L31V 9-53-TC6	Ceramic coating white borated silica	Discolored, cracked, contaminated (particle)
216	L31V 9-54-TC7	Ceramic coating black borated silica coating	Bleached, cratered
217	L31V 9 55-TC7	Ceramic coating black borated silica coating	Cratered
218	L31V 9-56-TC8	Ceramic coating black HS 4 on LI-900	Darkened, cratered
219	L31V 9 57-TC8	Ceramic coating black HS 4 on LI-900	Darkened, contaminated (particle)
220	L31V 9 58-TC4	Black silicone high temperature paint Sporex SP-102	Bleached, cratered

DB#	Sample ID	Description	Post-Flight Condition
221	L31V 9.59 TC4	Black silicone high temperature paint Spelex SP-102	Bleached
222	L31V 9.60 TC5	Teflon FEP polymer coating Spraylon 7075	Eroded, discolored (+), flaked, cratered
223	L31V 9.61 TC5	Teflon FEP polymer coating Spraylon 7075	Eroded, discolored (+), flaked, cratered
224	L31V 8.62 183.3	Thin film solar cell CuInSe ₂ /CdS	Missing, cratered
225	L31V 8.63.3	Thin solar cell standard Si	Missing, cratered
226	L31V 8.64.8	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Eroded, cratered
227	L31V 8.65.10	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Eroded, cratered
228	L31V 8.66.12	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Eroded, cratered
229	L31V 8.67.24	Graphite/polysulfone (T 300/ P 1700 polysulfone resin [0 / 90])	Eroded, cratered
230	L31V 8.68.12	Graphite-epoxy (conditioned) (T 300 unidirectional tape/Fberite EA 934 epoxy resin [0])	Eroded, cratered
231	L31V 15.69.21	Rhodium coated glassy carbon substrate	Cratered
232	L31V 17.70.1	Thermoluminescent dosimeter, LiF	Discolored, microfractured, cratered
233	L31V 16.71.0	HA-43 polyarylate/ethylene polyphenylquinoxaline blend/Low temp PAN composite	Eroded (-), cratered
234	L31V 16.72.A	HA-43 polyarylate/ethylene (PAA)/T300 carbon fabric composite	Oxidized
235	L31V 16.73.B	Aerospace polyarylate/ethylene (PAA)/T300 carbon fabric composite	Eroded (-)
236	L31V 16.74.C	HA-43 polyarylate/ethylene (PAA)/polyphenylquinoxaline (PPO) blend/T300 carbon fabric composite	Eroded
236.5	L3.V	Composite panel graphite/934 [02, 45, 02, 45, 90, 0]s with 3 coatings A276, Z306, S13GLO	Eroded (+) cratered
237	L6111 9.1 TC14.4	LMSC modified Celconics 931 coating on Ta substrate	Eroded (+)
238	L6111 9.2 TC15.21	JB-1 Black coating on Ta substrate	Crazed (+), flaked (-) cratered
239	L6111 9.3 TC16.4	Vestair coating on Al substrate	Discolored (+), crazed (+) flaked
240	L6111 9.4 TC17.1	GE SHC 1010 coating on Al substrate	Discolored
241	L6111 10.5 GL2.1	Mirror graphite/glass Celcon 6000 borosilicate glass	Crazed
242	L6111 10.6 AL8.7	Mirror, GY70201/2024 clad (6 ply)	Unchanged
243	L6111 9.7 TC18.1	Tedlar (400B530W11) bonded to Al with Isolack Y946S	Eroded, discolored, cratered
244	L6111 9.8 TC19.1	Black oxide coating on 304 stainless steel substrate	Bleached
245	L6111 10.9 MG7.3	Sirap, VS0054/EZ33VAZ318 clad [0 ± 60°]s (6 ply)	Dulled
246	L6111 10.10 AL7.2	Sirap, GY70201/2024 clad [0 ± 60°]s (6 ply)	Dulled
247	L6111 10.11 MG7.1	Sirap, VS0054/EZ33VAZ318 clad, [0 ± 60°]s (6 ply), epsl meas, SG 20	Unchanged
248	L6111 10.12 AL7.1	Sirap, GY70201/2024 (6 ply) clad, SG19 [0 ± 60°]s, epsl meas	Hazed (-), cratered
249.01	L6111 10.13.1	Wire, P100VAZ61A (Ti + B)	Contaminated (stain)
249.02	L6111 10.13.2	Wire, P100VAZ61A (Ti + B)	Contaminated (stain)
249.03	L6111 10.13.3	Wire, P100VAZ61A (Ti + B)	Contaminated (stain)
249.04	L6111 10.13.4	Wire, P100VAZ61A (Ti + B)	Contaminated (stain)
250.01	L6111 10.13.5	Wire, P55(TO2)/6061Al (Ti + B)	Contaminated (stain) (-)
250.02	L6111 10.13.6	Wire, P55(TO2)/6061Al (Ti + B)	Contaminated (stain)
251.01	L6111 10.13.7	Wire, GY70(8T)/201	Contaminated (stain)
251.02	L6111 10.13.8	Wire, GY70(8T)/201	Contaminated (stain)
252.01	L6111 10.13.9	Wire, P55/6061Al (Ti + B)	Contaminated (stain)
252.02	L6111 10.13.10	Wire, P55/6061Al (Ti + B)	Contaminated (stain)
253.01	L6111 10.13.11	Wire, T300/6061 Al	Contaminated (stain, particle)

Q98	Sample ID	Description	Post-Flight Condition
254	L6III-10-14-12	Wire 1300/6061Al	Contaminated (stain)
255 01	L6III-10-14-13	Wire P100/6061Al (Ti + B)	Contaminated (stain)
255 02	L6III-10-14-14	Wire P100/6061Al (Ti + B)	Contaminated (stain)
255 03	L6III-10-14-15	Wire P100/6061Al (Ti + B)	Contaminated (stain)
255 04	L6III-10-14-16	Wire P100/6061Al (Ti + B)	Contaminated (stain)
256 01	L6III-10-14-17	Wire P55(10K)/6061Al	Contaminated (stain)
256 02	L6III-10-14-18	Wire P55(10K)/6061Al	Contaminated (stain)
256 03	L6III-10-14-19	Wire P55(10K)/6061Al	Contaminated (stain)
256 04	L6III-10-14-20	Wire P55(10K)/6061Al	Contaminated (stain)
257 01	L6III-10-14-21	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
257 02	L6III-10-14-22	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
258	L6III-10-15-AL3-2	Strip GY70/201/2024 clad (1 ply). (0) epsl meas. SG18	Hazed, contaminated (stain)
259	L6III-10-16-AL14-10	Strip VSB32/6061-T6/6061 Al clad (0) (1 ply). SG17, CTS4, epsl meas	Hazed, contaminated (stain)
260	L6III-10-17-AL15-1	Strip VSB32/6061-T6/6061 Al clad (90°). epsl meas. SG16	Distorted, hazed, contaminated (stain)
261	L6III-10-18-AL3-3	Strip GY70/201/2024 clad (0) (1 ply)	Hazed, contaminated (stain)
262	L6III-10-19-AL3-4	Strip GY70/201/2024 clad (0). (1 ply)	Hazed, contaminated (stain), cratered
263	L6III-10-20-A'-4-1	Strip GY70/201/2024 clad. (90°)	Hazed, contaminated (stain)
264	L6III-10-21-AL4-2	Strip GY70/201/2024 clad. (90°)	Hazed, contaminated (stain)
265	L6III-10-22-AL5-9	Strip GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain), cratered
266	L6III-10-23-AL5-1	Strip GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain)
267	L6III-10-24-EP1-2	Strip GY70/X 30 [0/45/90/135]4	Eroded, contaminated (stain)
268	L6III-10-25-AL5-2	Strip GY70/201/2024 clad. (0). (1 ply)	Hazed, contaminated (stain)
269	L6III-10-26-PS5-1	Rivoted lap. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded, contaminated (stain)
270	L6III-10-27-PS5-2	Rivoted lap W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded, contaminated (stain), cratered
271	L6III-10-28-SS1-7	Strip Invar LR-35	Hazed, contaminated (stain)
272	L6III-9-29-S0-0	Strip Sodal O coating (A, DC93-500/ B, R-2501)	Crazed, wrinkled, cratered
274	L6III-10-31-PS2-4	Strip W-722 (Graphite/Glass fabric)/P1700	Darkened, flaked, contaminated (stain), cratered
275	L6III-10-32-PS3-1	Strip W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain), wrinkled
276	L6III-10-33-PS3-2	Strip W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain), wrinkled, cratered
277	L6III-10-34-EP3-3	Strip T300 tape/934. (0)	Eroded, contaminated (stain), cratered
278	L6III-10-35-EP3-4	Strip T300 tape/934. (0)	Eroded, contaminated (stain)
279	L6III-10-36-MG9-L1	Strip P100/AZ91C/AZ61A. (0°)	Distorted, contaminated (stain)
280	L6III-10-37-23	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
281 01	L6III-10-37-24	Wire P55 (10K)/AZ91C	Discolored
281 02	L6III-10-37-25	Wire P55 (10K)/AZ91C	Unchanged
281 03	L6III-10-37-26	Wire P55 (10K)/AZ91C	Unchanged
282 01	L6III-10-38-27	Wire SiC/6061 Al	Contaminated (stain)
282 02	L6III-10-38-28	Wire SiC/6061 Al	Distorted, contaminated (stain)
282 03	L6III-10-38-29	Wire SiC/6061 Al	Distorted, contaminated (stain)
282 04	L6III-10-38-30	Wire SiC/6061 Al	Contaminated (stain)

Post-Flight Condition

DB#	Sample ID	Description	Post-Flight Condition
282 05	L6III-10-38 31	Wire. SiC/6061 Al	Contaminated (stain)
282 06	L5III-10-38-32	Wire. SiC/6061 Al	Contaminated (stain)
282 07	L6III-10-38-33	Wire. SiC/6061 Al	Contaminated (stain)
282 08	L6III 10 38 34	Wire. SiC/6061 Al	Contaminated (stain)
282 09	L6III-10-38 35	Wire SiC/6061 Al	Contaminated (stain)
282 1	L6III 10 38 36	Wire SiC/6061 Al	Contaminated (stain)
282 11	L6III 10 38 37	Wire SiC/6061 Al	Contaminated (stain)
282 12	L6III 10 38 38	Wire SiC/6061 Al	Unchanged
282 13	L6III 10 38 39	Wire SiC/6061 Al	Contaminated (stain)
282 14	L6III 10-38 40	Wire SiC/6061 Al	Unchanged
282 15	L6III 10 38 41	Wire SiC/6061 Al	Distorted
282 16	L6III 10 38 42	Wire SiC/6061 Al	Unchanged
282 17	L6III 10 38 43	Wire SiC/6061 Al	Unchanged
282 18	L6III 10 38 44	Wire. SiC/6061 Al	Distorted (-)
283	L6III 10 39 AL15 8	Strip. VSB32/6061 T6 Al/6061 clad (90). epsl meas. SG15	Cratered
284	L6III 10 40 MG3 17	Strip. VS0054/EZ33A/AZ31B (0). epsl meas. SG14. CTS3	Distorted
285	L6III 10 41 MG5 23	Strip. VS0054/EZ33A/AZ31B (0). epsl meas. SG13 clad	Distorted
286	L6III 10-42 AL12-1	Strip. VSB32/6061-T6 Al/6061 clad (0)	Hazed
287	L6III 10-43-AL6-1	Strip. GY70/201/2024 clad (90)	Dulled (-). contaminated (stain). cratered
288	L6III 10 44-AL6-5	Strip. GY70/201/2024 clad (90)	Dulled (-). cratered
289	L6III 9 45-S0 G	Strip. Sokdal G coating (A. DC93-500/ B. R-2500)	Crazed. wrinkled. cratered
291	L6III 10 47 MG9 L2	Strip. P100/AZ91C/AZ61A (0*)	Distorted
292	L6III 10-48-PS3 5	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded. contaminated (stain)
293	L6III 10-49-PS4 1	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain)
294	L6III 10 50 PS5 5	Rivoted lap W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Eroded. contaminated (stain)
295	L6III 10-51-PS6-1	Rivoted lap W-722(Graphite/Glass fabric)/P1700/ZnO coating	Eroded. contaminated (stain)
296	L6III 10-52-PS4-3	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain)
297	L6III 10-53-PS4 4	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Eroded
298	L6III 10-54-GL1 1	Strip. graphite/glass. Cation 6000/borosilicate glass	Eroded, contaminated (stain)
299	L6III-10-55-EP12-1	Strip. P75S/934 (0/145/90/135)S2	Eroded, contaminated (stain)
300	L6III-10-56-EP12-2	Strip. P75S/934 (0/45/90/135)S2	Eroded, contaminated (stain)
301	L6III-10-57-EP4-4	Strip. AS/3501 6 (0)	Eroded
302	L6III 10 58-PS2-3	Strip. W-722(Graphite/Glass fabric)/P1700	Eroded, darkened
303	L6III-10-59-AL12-2	Strip. VSB32/6061-T6/6061 Al clad. (0)	Hazed (-). contaminated (stain)
304	L6III-10-60-AL12-3	Strip. VSB32/6061-T6/6061 Al clad. (0)	Hazed (-). contaminated (stain)
305	L6III 9-61-S0-A	Strip. Sokdal A coating: (A. Electrodag 502 / B. Electrodag 501)	Unchanged
307	L6III-10-63-SS1-1	Strip. Invar LR35. epsilon meas. SG12	Distorted. corroded
308	L6III-10-64-SS1 3	Strip. Invar LR35. epsilon meas. SG11. CTS 2	Distorted. contaminated (stain)
309	L6III-10-65-PS7	Strip. T300/polysulfone/TiO2 coating. epsilon meas. SG10	Eroded
310	L6III-10-66-EP3 1	Strip. T300 tape/934 (0). epsilon meas. SG9. CTS 1	Eroded

DB#	Sample ID	Description	Post-Flight Condition
311	L6III 10 67 PS2-1	Strip. W 722(Graphite/Glass fabric)/P1700, epsilon meas. SG8	Eroded, discolored
312	L6III 10 68 PS1-1	Strip. T300 Fabric/P1700, epsilon meas. SG7, [0/90]	Eroded, cratered
313	L6III 10 69 MG3-5	Strip. V50054/EZ33A/AZ31B clad. (0)	Distorted
314	L6III 10 70 MG9 T2	Strip. P10C/AZ91C/AZ61A (90)	Distorted, dulled
315	L6III 10 71 MG3 1	Strip. V50054/EZ33A/AZ31B clad. (0)	Distorted, dulled
316	L6III 10 72 EP13 1	Strip. GY70/934 (0.45/90/135)S2	Eroded
317	L6III 10 73 MG9 T6	Strip. P100/AZ91C/AZ61A (90)	Distorted, dulled
318	L6III 10 74 AL6 9	Strip. GY70/201/2024 clad (90)	Dulled, cratered
319	L6III 10 75 MG5 6	Strip. V50054/EZ33A/AZ31B clad. (0)	Dulled, cratered
320	L6III 10 76 EP13 2	Strip. GY70/934 (0.45/90/135)S2	Eroded
321	L6III 10 77 EP15 1	Strip. T300/5208/ZnO coating	Discolored, contaminated (slain)
322	L6III 10 78 AL14 1	Strip. VSB32/6061 T6/6061 Al clad (0)	Hazed, cratered
323	L6III 10 79 AL14 14	Strip. VSB32/6061 T6/6061 Al clad (0)	Dulled
324	L6III 10 80 EP10 1	Strip. E-glass 120 Fabric/X9048. (0)	Eroded, cratered
325	L6III 10 81 PS6 3	Revolted lap 722(Graphite/Glass fabric) P1700/ZnO coating	Eroded, cratered
326	L6III 10 82 PS6-4	Revolted lap. 722(Graphite/Glass weave) P1700/ZnO coating	Eroded
327	L6III 10 83 EP5 1	Strip. GY70/X9048. (0)	Eroded
328	L6III 10 84 EP6 1	Strip. GY70/X9048. (0/90/90/0)	Eroded, cratered
329	L6III 10 85 EP7 1	Strip. GY70/X9048. [+45/(-45)2/+45]4	Eroded, cratered
330	L6III 10 86 EP8 1	Strip. HMS/3501-5A. (0/90/90/0)4	Eroded, cratered
331	L6III 10 87 EP9 1	Strip. HMS/3501-5A. (0)	Eroded, cratered
332	L6III 10 88 P11 3	Strip. Celion 6000/PMR-15 (0)	Distorted, eroded, cratered
333	L6III 10 89 P11 4	Strip. Celion 6000/PMR-15(0)	Distorted, eroded, cratered
334	L6III 10 90 EP22-1	Strip. GY70/CE339 (0/45/90/135)S2	Eroded, cratered
335	L6III 10 91 PS1 3	Strip. T300 Fabric/P1700. (0.90)	Eroded, cratered
336	L6III 10 92 MG5-1	Strip. V50054/EZ33A/AZ31B clad. (90)	Eroded, cratered
337	L6III 10 93-AL32-4	Strip. SiC fibers/Al	Eroded
338	L6III 10 94 MG6-9	Strip. V50054/EZ33A/AZ31B clad. (90)	Distorted, dulled, discolored
339	L6III 10 95 AL31 1	Strip. SiC whiskers/6061 Al	Unchanged
340	L6III 10 96-AL30-2	Strip. SiC whiskers/2124 Al	Dulled, contaminated (stain), cracked
341	L6III 10 97 GL3-1	Strip. graphite/glass: Celion 6000/borosilicate glass	Dulled
342	L6III 10 98 EP2 1	Strip. GY70/X-30/Sn-In eut. (0/45/90/135)4	Unchanged
343	L6III 10 99 EP2-2	Strip. GY70/X-30/Sn-In eut. (0/45/90/135)4	Cratered
344	L6III 10 100-EP4-2	Strip. AS/3501-6(0) epsilon meas., SG6	Cratered
345	L6III 10 101-P11-1	Strip. Celion 6000/PMR-15, epsilon meas., SG5 (0)	Dulled
346	L6III 10 102-EP1-1	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4 epsilon meas., SG4	Eroded, cratered
347	L6III 10 103-PS11 1	Strip. T300/polyether sulfone, epsilon meas., SG3	Distorted eroded, cratered
348	L6III 10 104-P15-2	Strip. T300/V376A, epsilon meas., SG2 (0/45/90/135)S2	Eroded (+), cratered
349	L6III 10 105 P12-1	Strip. Graphite/LARC-160, epsilon meas., SG1	Eroded (+), cratered
350	L6III 10 106-AL33 2	Strip. P100/201/2024 (+20/-20°)S	Eroded (+), cratered
			Unchanged

DB#	Sample ID	Description	Post-Flight Condition
351	L6III-10-107-PS8	Strip. T300/P1700/TiO2 coating	Discolored (-), cratered
352	L6III-10-108-PS9	Strip. T300/P1700/Al flake	Unchanged
353	L6III-10-109-PS10	Strip. T300/P1700/ZnO coating	Discolored (-)
354	L6III 10 110-EP22-7	Strip. GY70/CE339 (0/45/90/135)S2	Oxidized
355	L6III 10 111 MG10-5	Strip. P100/AZ91C/AZ61A (-10°/-10°)S	Dulled
356	L6III-10 112 MG10-7	Strip. P100/AZ91C/AZ61A (-10°/-10°)S	Dulled
357	L6III 10 113 AL33-6	Strip. P100/201/2024 (-20°/-20°)S	Unchanged
358	L6III 10 114 EP21-1	Strip. P75S/CE339 (0/45/90/135)S4	Eroded
359	L6III 10 115 EP21-2	Strip. P75S/CE339 (0/45/90/135)S4	Eroded
360	L6III 10 116 AL32-8	Strip. SiC fibers/Al	Unchanged
361	L6III 10 117 P15-1	Strip. T300/V378A (0/45/90/135)S2	Eroded
362	L6III 10 118 P15-4	Strip. T300/V378A (0/45/90/135)S2	Eroded
363	L6III 10 119 PS1-9	Strip. T300 Fabric/P1700 (0/90)	Eroded
364	L6III 10 120 EP4-5	Strip. AS/3501-6 (0)	Eroded
365	L6III 10 121 P12-3	Strip. graphite/LARC 160	Oxidized
366	L6III 10 122 P13	Strip. Celcon 6000/polyimide	Discolored
367	L6III 10 123-AL8-4	Mirror. GY70/201/2024 clad(0/±60°)S	Contaminated (stain)
368	L6III 9 124-TC14-5	Ta substrate/LMSC modified Cotronics 931 coating	Unchanged
369	L6III-9 125-TC15-24	Ta substrate/JB-1 black coating	Crazed, darkened
370	L6III 9 126-TC16-5	Al substrate/Vestar coating	Crazed, flaked
371	L6III-9-127-TC17-2	Al substrate/GE-SHC 1010 coating	Hazed (-), cracked
372	L6III-9-128-TC19-2	Stainless steel substrate, black oxide coating	Dulled
373	L6III-9-129-TC18-2	Tedlar (400BS30W11) bonded to Al with Isolack V9469	Contaminated (particle)
374	L6III 10 130 AL8-2	Mirror. GY70/201/2024 clad (0/±60°)S	Unchanged
375	L6III 10 131 MG7-7	Strip. VS0054/EZ33A/AZ31B clad. (0/±60°)S	Dulled
376	L6III 10 132 AL7-5	Strip. GY70/201/2024 clad. (0/±60°)S	Unchanged
377	L6III-9 133-C48-7	Strip. P75S/934, 102-15A	Unchanged
378	L6III 9 133 C48-10	Strip. P75S/934, 102-15A	Unchanged
379	L6III-9-134-C47-9	Strip. P75S/F593, 102-270	Contaminated (stain)
380	L6III-9-134-C47-12	Strip. P75S/F593, 102-270	Contaminated (stain)
381	L6III-10-135-1	Wire. P100/AZ61A (Ti + B)	Unchanged
382	L6III-10-135-2	Wire. P55 (Ti02)/6061 Al (Ti + B)	Unchanged
383	L6III-10-135-3	Wire. GY70 (8T)/201	Unchanged
384	L6III-10-135-4	Wire. P55/6061Al (Ti + B)	Unchanged
385	L6III-10-135-5	Wire. T300/6061Al	Contaminated (stain)
386	L6III-10-135-6	Wire. P100/6061 Al (Ti + B)	Unchanged
387	L6III-10-135-7	Wire. P55 (10K)/6061 Al	Unchanged
388	L6III-10 135-8	Wire. P100/AZ31B (Ti + B)	Unchanged
389	L6III-10-135-9	Wire. P55 (10K)/ AZ91C	Unchanged
390	L6III-10-135-10	Wire. SiC/6061 Al	Unchanged

Post-Flight Condition

Obs	Sample ID	Description	Post-Flight Condition
391 01	L6III 10-136-11	Wire. SiC/6061 Al	Unchanged
391 02	L6III-10-136-12	Wire. SiC/6061 Al	Unchanged
391 03	L6III-10-136-13	Wire. SiC/6061 Al	Unchanged
391 04	L6III-10-136-14	Wire. SiC/6061 Al	Unchanged
393	L6III 10-138-AL3-8	Strip. GY70/201/2024 clad. (0°)	Contaminated (stain)
394	L6III-10-139-AL3-9	Strip. GY70/201/2024 clad. (0°)	Unchanged
395	L6III 10-140-AL4-5	Strip. GY70-201/2024 clad. (90°)	Contaminated (stain)
396	L6III 10-141-AL4-6	Strip. GY70/201/2024 clad. (90°)	Contaminated (stain)
397	L6III 10-142-AL15-11	Strip. VS832/6061-T6/6061 Al clad. (90°)	Contaminated (stain)
398	L6III 10-143-AL5-3	Strip. GY70/201/2024 clad. (0°)	Unchanged
399	L6III 10-144-AL5-4	Strip. GY70/201/2024 clad. (0°)	Contaminated (stain)
400	L6III 10-145-AL5-10	Strip. GY70/201/2024 clad. (0°)	Contaminated (stain)
401	L6III 10-146-EP1-5	Strip. GY70/X-30. (0/45/90/135)4	Oxidized
402	L6III 10-147-EP1-6	Strip. GY70/X-30. (0/45/90/135)4	Contaminated (stain)
403	L6III 10-148-PS5-7	Rotated lap. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain)
404	L6III 10-149-EP22-11	Strip. GY70 CE339 (0/45/90/135)S2	Contaminated (stain)
405	L6III 10-150-SS1-8	Strip. Invar LR35	Contaminated (stain)
406	L6III 10-151-PS2-7	Strip. W-722(Graphite/Glass fabric)/P1700	Contaminated (stain)
407	L6III 10-152-PS2-8	Strip. W-722(Graphite/Glass fabric)/P1700	Contaminated (stain)
408	L6III 10-153-PS2-9	Strip. W-722(Graphite/Glass fabric)/P1700	Unchanged
409	L6III 10-154-PS3-7	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain)
410	L6III 10-155-PS3-8	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain)
411	L6III 10-156-EP3-7	Strip. T300 tape/934. (0)	Crazed. contaminated (stain)
412	L6III 10-157-EP3-8	Strip. T300 tape/934. (0)	Unchanged
413	L6III 10-158-EP3-9	Strip. T300 tape/934. (0)	Unchanged
416	L6III 10-161-AL6-2	Strip. GY70/201/2024 clad. (90°)	Unchanged
417	L6III 10-162-AL6-6	Strip. GY70/201/2024 clad. (90°)	Unchanged
418	L6III 10-163-AL6-10	Strip. GY70/201/2024 clad. (90°)	Unchanged
419	L6III 10-164-AL12-4	Strip. VS832/6061-T6/6061 Al (0)	Unchanged
420	L6III 10-165-AL12-5	Strip. VS832/6061-T6/6061 Al (0)	Unchanged
421	L6III 10-166-AL12-6	Strip. VS832/6061-T6/6061 Al (0)	Dulled
422	L6III 10-167-MG10-1	Strip. P100/AZ91C/AZ61A (~10°/-10°)S	Unchanged
423	L6III 10-168-MG10-2	Strip. P100/AZ91C/AZ61A (~10°/-10°)S	Unchanged
424	L6III 10-169-MG5-12	Strip. VS0054/EZ33A/AZ31B clad (0°)	Unchanged
425	L6III 10-170-PS3-9	Strip. W-722(Graphite/Glass fabric)/P1700/TiO2 coating	Unchanged
426	L6III 10-171-PS4-7	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
427	L6III 10-172-PS4-9	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
428	L6III 10-173-PS6-7	Rotated lap W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
429	L6III 10-174-PS4-8	Strip. W-722(Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
430	L6III 9 175-S0-P	Strip. Sodal P coating (A. DC93-500/ B. R-2501)	Contaminated (particle)

DB#	Sample ID	Description	Post-Flight Condition
432	L6III-10-177-EP12-5 Strip.	P75S/934. (0/45/90/135)S2	Contaminated (stain)
433	L6III-10-178-EP12-6 Strip.	P75S/934. (0/45/90/135)S2	Contaminated (stain)
434	L6III-10-179-EP4-8 Strip.	AS/3501-6 (0)	Discolored
435	L6III-10-180-EP4-9 Strip.	AS/3501-6 (0)	Discolored
436	L6III-10-181-EP4-10 Strip.	AS/3501-6 (0)	Crazed, contaminated (stain)
437	L6III-10-182-P11-7 Strip.	Celion 6000/PMR-15. (0)	Crazed, contaminated (stain)
438	L6III-10-183-AL14-9 Strip.	VS832/6061-T6/6061 Al clad. (0)	Unchanged
439	L6III-10-184-AL14-2 Strip.	VS832/6061-T6/6061 Al clad. (0)	Unchanged
440	L6III-10-185-AL14-11 Strip.	VS832/6061-T6/6061 Al clad. (0)	Unchanged
441	L6III-10-186-AL15-2 Strip.	VS832/6061-T6/6061 Al clad. (90)	Unchanged
442	L6III-10-187-AL15-9 Strip.	VS832/6061-T6/6061 Al clad. (90)	Unchanged
443	L6III-10-188-EP22-3 Strip.	GY70/CE339 (0/45/90/135)S2	Dulled (-)
444	L6III-10-189-AL33-3 Strip.	P100/201/2024 Al (+20°/-20°)S	Unchanged
445	L6III-10-190-MG3-2 Strip.	VS0054/EZ33A/AZ31B. (0)	Unchanged
446	L6III-10-191-AL33-4 Strip.	P100/201/2024 Al (+20°/-20°)S	Unchanged
447	L6III-10-192-MG4-2 Strip.	VS0054/EZ33A/AZ31B. (90)	Contaminated (stain)
448	L6III-10-193-EP13-5 Strip.	GY70/934 (0/45/90/135)S2	Unchanged
449	L6III-10-194-MG5-2 Strip.	VS0054/EZ33A/AZ31B. (0)	Unchanged
450	L6III-10-195-MG3-3 Strip.	VS0054/EZ33A/AZ31BA clad (0)	Contaminated (stain)
451	L6III-10-196-MG5-8 Strip.	VS0054/EZ33A/AZ31B clad (0)	Contaminated (stain)
452	L6III-10-197-EP13-6 Strip.	GY70/934 (0/45/90/135)S2	Contaminated (stain)
453	L6III-10-198-EP17-1 Strip.	T300/2 mil-3M 113 viscoelastic tape/5208	Unchanged
454	L6III-10-199-EP10-3 Strip.	E-glass 120 Fabric/X9043. (0)	Contaminated (stain)
455	L6III-10-200-EP16-2 Strip.	T-300/5208	Contaminated (stain)
456	L6III-10-201-EP11-2 Strip.	HMS/3501-5A [+45/(-45)2/-45]4T	Contaminated (stain)
457	L6III-10-202-EP8-2 Strip.	HMS/3501-5A. [0/(90)2/0]4T	Contaminated (stain)
458	L6III-10-203-EP9-2 Strip.	HMS/3501-5A [(0)16]T	Contaminated (stain)
459	L6III-10-204-EP5-3 Strip.	GY70/X904B. (0°)	Contaminated (stain)
460	L6III-10-205-EP6-3 Strip.	GY70/X904B. (0°/90/90/0)	Contaminated (stain)
461	L6III-10-206-EP7-3 Strip.	GY70/X904B. [(+45/(-45)2/-45]4T	Contaminated (stain)
462	L6III-10-207-PS1-5 Strip.	T300 Fabric/P-1700 (0, 90)	Contaminated (stain)
463	L6III-10-208-PS1-6 Strip.	T300 Fabric/P-1700 (0, 90)	Contaminated (stain)
464	L6III-10-209-GL3-2 Strip.	graphite glass: Celion 6000/borosilicate glass	Contaminated (stain)
465	L6III-10-213-MG6-8 Strip.	VS0054/EZ33A/AZ31B. (90)	Contaminated (stain)
469	L6III-10-214-MG6-2 Strip.	VS0054/EZ33A/AZ31B clad. (90)	Contaminated (stain)
470	L6III-10-215-MG5-15 Strip.	VS0054/EZ33A/AZ31B clad. (90)	Contaminated (stain)
471	L6III-10-216-MG3-15 Strip.	VS0054/EZ33A/AZ31B. (0)	Contaminated (stain)
472	L6III-9-217-S0-B Strip.	Soldal B coating: (A, Electrodag 502 / B, Electrodag 501)	Contaminated (stain)
474	L6III-10-219-MG9-L3 Strip.	P100/AZ91C/AZ61A (0)	Contaminated (stain)
475	L6III-10-220-MG9-L5 Strip.	P100/AZ91C/AZ61A (0)	Contaminated (stain)

DB#	Sample ID	Description	Post-Flight Condition
476	L6III-10-221 EP21 15 Strp.	P75S/CE-339 (0/45/90/135)S4	Contaminated (stain)
477	L6III-10-222-EP2-3 Strp.	GY70/X-30/Sn-In eut. (0/45/90/135)4	Contaminated (stain)
478	L6III-10-223-EP2-4 Strp.	GY70/X-30 (0/45/90/135)4	Contaminated (stain)
479	L6III 10-224 EP22 9 Strp.	GY70/CE-339 (0/45/90/135)S2	Contaminated (stain)
480	L6III-10-225-AL31-2 Strp.	SiC whiskers/6061	Contaminated (stain)
481	L6III-10-226-AL30-4 Strp.	SiC whiskers/2124	Contaminated (stain)
482	L6III-10-227-AL32-1 Strp.	SiC fibers/Al	Contaminated (stain)
483	L6III-10-228-AL32-2 Strp.	SiC fibers/Al	Contaminated (stain)
484	L6III-10-229 EP21-5 Strp.	P75S/CE-339 (0/45/90/135)S4	Contaminated (stain)
485	L6III 10-230 EP21-6 Strp.	P75S/CE-339 (0/45/90/135)S4	Contaminated (stain)
486	L6III-10-231-P15-7 Strp.	T300/V378A (16 ply)	Contaminated (stain)
487	L6III 10-232 P15-8 Strp.	T300/V378A (16 ply)	Contaminated (stain)
488	L6III 10-233-P15-9 Strp.	T300/V378A (16 ply)	Contaminated (stain)
489	L6III 10-234 PS1-11 Strp.	T300 Fabric/P1790 (0. 90)	Contaminated (stain)
490	L6III-10-235-P12-5 Strp.	Graphite/LARC-16	Contaminated (stain)
491	L6III 10-236-P12-6 Strp.	Graphite/LARC-160	Contaminated (stain)
492	L6III 10-237 P12-7 Strp.	Graphite/LARC-160	Contaminated (stain)
493	L6III 9-238-S0-11 Strp.	Soldal H coating. (A. DC93-500: B. R-2500)	Crazed, contaminated (particle, stain)
495	L6III 10-240-EP13-11 Strp.	GY70/934 (0/45/90/135)S2	Contaminated (stain)
499	L6III 10-244 AL14-6 Strp.	VS832/6061-T6/6061 Al clad (0)	Contaminated (stain)
500	L6VI-7 1 46-11	Mirror, Ag + (Al2O3/Si)3 multi-layer coating on polished molybdenum substrate	Microfractured, corroded, cratered
501	L6VI-1 2 C33	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
502	L6VI 1 3-B33	WO3 (UV treated)-IR dye/Al substrate	Eroded
503	L6VI 1 4 A33	WO3 (UV treated)/polyurethane/Al substrate	Eroded
504	L6VI 11 5 BG02	Low scatter black glass	Hazed
505	L6VI-11-6 S02	Aluminized fused silica mirror	Contaminated (particle)
506	L6VI-5-7 A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	Contaminated (stain)
507	L6VI-5-8 A2	Indium-Tin oxide/Teflon FEP/Ag/Inconel. 5 mil. Sheldahl	Hazed
508	L6VI-11 9-N02	Low scatter nickel mirror	Hazed
509	L6VI-11-10-C82-4	Gold coated nickel mirror	Corroded
510	L6VI 5 11 A3LC	Porcelain enamel on Al. NASA Marshall Space Flight Center	Contaminated (particle)
511	L6VI-5-12-A4	Indium-Tin oxide/Teflon FEP/Ag/Inconel. 2 mil. Sheldahl	Hazed
512	L6VI 5-13-A5B	Black paint, D111, IITRI	Crazed
513	L6VI-6-14-IV	Ag/Teflon FEP covered cassette holding four laser communication components	Cover: buckled
514	L6VI-11-15-2	ZnSe infrared plate	Contaminated (spatter)
515	L6VI-5-16-A6	7um quartz fabric chemical and heat cleaned (+450°C), adhesive bond. General Electric	Contaminated (stain)
516	L6VI-5 17 A7	Teflon FEP/Ag/Inconel. 2 mil. Sheldahl	Hazed
517	L6VI 8-18-S4	Silicon nitride. 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	Unchanged
518	L6VI-8-19 F1	Silicon nitride foam	Unchanged
519	L6VI 8 20 S5	Silicon nitride. 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	Unchanged

Post-Flight Condition

DB#	Sample ID	Description	Post-Flight Condition
520	L6VI-4-21-X1	Conventional silicon cells, 5 cell string	Microfractured
521	L6VI-11-22-2	Corning 7940 second surface aluminum mirror	Hazed
522	L6VI-5-23-B1	Optical Solar Reflector, OCLI SI-100	Corroded
523	L6VI 5 24-B4	Al mirror/glass	Microfractured
524	L6VI 5-25-B5	Ag mirror/Al	Corroded (+)
525	L6VI-5-26-B3	Au mirror/Al	Discolored
526	L6VI-12-27-3	Thermoluminescent dosimeter, LfF	Buckled
527	L6VI 5 28-B2	Optical Solar Reflector, OCLI SI-100 with conductive coating	Corroded
528	L6VI 5 29-A8	Teflon FEP/Ag/Inconel 5 mil. Sheldahl	Hazed
529	L6VI 5 30-A9	In2O3/Teflon FEP/Ag/Inconel, 5 mil. General Electric	Microfractured
530	L6VI 5 31-A10	Kapton/Al, 1 mil. Sheldahl	Eroded, cratered
531	L6VI 5 32-A11	Kapton/Al 5 mil. Sheldahl	Eroded
532	L6VI 5-33-A12	In2O3/Kapton/Al, 5 mil. General Electric	Microfractured
533	L6VI 5 34-A13	White paint, Z93, IITRI	Unchanged
534	L6VI 5 35-A14	White paint, S13GLO IITRI	Discolored ()
535	L6VI 5 36-A15	White paint, YB-71, IITRI	Crystallized
536	L6VI-5-37-A16	White paint, NS 43G, NASA Goddard Space Flight Center	Discolored ()
537	L6VI-5-38-A17	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored ()
538	L6VI 5 39-A18	White paint, alpha-A2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+), contaminated (particle)
539	L6VI 5 40-A19	White paint, PV100, TiO2/silicone resin, ML101, Air Force Materials Laboratory	Contaminated (particle)
540	L6VI 5 41-A20	White paint, TiO2/RTV 602, ML101, Air Force Materials Laboratory	Discolored ()
541	L6VI-5-42-A21	White paint, DC92-007, TiO2/RTV 3140, Rockwell Int	Discolored, contaminated (particle)(+)
542	L6VI-5-43-A22	White paint, DC92-007, TiO2/RTV 3140, Rockwell Int	Discolored, contaminated (particle)
543	L6VI 2 44-002	Fused SiO2	Unchanged, cratered
544	L6VI 2 45 018	Fused SiO2	Unchanged
545	L6VI 2 46 019	Fused SiO2	Contaminated (particle)
546	L6VI-2-47-014	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, cratered
547	L6VI 2 48-022	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, contaminated (particle), cratered
548	L6VI-2-49-024	MgF2 coating, lambda (1.06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
549	L6VI 2-50-N19	Polished molybdenum	Corroded (-), contaminated (particle)
550	L6VI 2-51-N23	Polished molybdenum	Hazed
551	L6VI-2-52-N8	Polished molybdenum	Hazed
552	L6VI-2-53-N3	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Contaminated (particle), cratered
553	L6VI-2-54-N6	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Hazed
554	L6VI-2-55-N14	ThF4/Ag/Cr coating lambda (1.06)/2 thick/ molybdenum substrate	Hazed
555	L6VI-2-56-0692	Diamond-turned copper, A surface	Oxidized, contaminated (particle)
556	L6VI-2-57-8683	Diamond-turned copper, B surface	Oxidized, contaminated (particle)
557	L6VI 2-58 8686	Diamond-turned copper, A surface	Oxidized, contaminated (particle)
558	L6VI 2 59-2	Diamond-turned nickel coated copper, A surface	Contaminated (particle)
559	L6VI 2 60-4	Diamond-turned nickel coated copper, A surface	Hazed, contaminated (particle)

D88	Sample ID	Description	Post-Flight Condition
560	L6VI-2-61-5	Diamond-turned nickel coated copper, B surface	Hazed, contaminated (particle)
561	L6VI 1-62-C41	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
562	L6VI 1-63-B41	WO3 (UV treated)-IR dye/Al substrate	Eroded, discolored
563	L6VI 1-64-A41	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
564	L6VI 1-65-B52	WO3 (UV treated)-IR dye/Al substrate	Discolored (-)
565	L6VI 1-66-A52	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
566	L6VI 7-67-239	Mirror, Si/SiOx coating on polished molybdenum substrate	Corroded (+), hazed
567	L6VI 7-68-15	Mirror, Al + (Al2O3/ZnS)*9 multi-layer coating on polished molybdenum substrate	Hazed
568	L6VI 1-69-C52	WO3 (UV treated)/polyurethane/Al substrate	Eroded, discolored
569	T3II 1-1-C	Resonant reflector	Corroded, cratered
570	T3II 1-2-D	Circuit analog sheet	Discolored (+), cratered
571	T3II 1-3-A	Capacitive grid	Contaminated (particle, stain), cratered
572	T3II 1-4-B	Resonant window	Corroded, Contaminated (stain), cratered
573	T3II-9-5-CW1	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	Unchanged
574	T3II-9-6-CW2	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	Unchanged
575	T3II-9-7-CW3	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	Unchanged
576	T3II-9-8-CW4	Bendix JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	Unchanged
577	T3II 5-1-C1	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Roughened, embrittled
578	T3II 5-2-C2	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Embrittled, flaked
579	T3II 5-3-C3	Kapton/Al, 1 mil, Sheldahl	Unchanged
580	T3II 5-4-C4	Kapton/Al, 5 mil, Sheldahl	Unchanged
581	T3II 5-5-C5	Teflon FEP type A, 5 mil	Embrittled, discolored
582	T3II 5-6-C6	Teflon FEP/Ag/Inconel (5 mil)/Eccobond 57C/Kapton (5 mil)	Embrittled, crazed
583	T3II 5-7-C7	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Debonded, crazed
584	T3II 5-8-C8	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Embrittled, crazed
585	T3II 5-9-C9	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Kapton (5 mil)	Debonded, crazed
586	T3II 5-10-C10	Teflon FEP/Ag/Inconel (5 mil)/RTV 560+12% graphite/Al/Kapton (5 mil)	Debonded, crazed
587	T3II 5-11-C11	Teflon FEP/Ag/Inconel (5 mil)/Y966/Kapton (5 mil)	Embrittled, crazed
588	T3II 5-12-C12	Teflon FEP/Ag/Inconel (5 mil)/NATO III/C/Kapton, 8.5 mil	Roughened
589	T3II 5-13-C13	Nylon 6/6, 5 mil	Discolored, embrittled
590	T3II 5-14-C14	Tetzel 500AE, 5 mil	Discolored, contaminated (particle)
591	T3II 5-15-C15	Polycarbonate, 5 mil	Discolored
592	T3II 5-16-C16	Polyphenylsulfone R-5000, 10 mil, Union Carbide	Discolored
593	T3II 5-17-B1	Optical Solar Reflector, OCLJ SI-100	Discolored, contaminated (particle), corroded
594	T3II 5-18-B2	Optical Solar Reflector, OCLJ SI-100 with conductive coating	Discolored, corroded
595	T3II 5-19-A1	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al, General Electric	Discolored
596	T3II 5-20-A2	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Discolored, microfractured
597	T3II 5-21-A3	Porcelain enamel on Al, NASA Marshall Space Flight Center	Discolored
598	T3II 5-22-A4	Indium-Tin oxide/Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Discolored
599	T3II 5-23-A5	Black paint, D111, IITRI	Crazed, contaminated (particle)

DBS	Sample ID	Description	Post-Flight Condition
600	T311-5 24-A6	7 μ m quartz fabric chemical and heat cleaned (+ 450°C), adhesive bond/Al, General Electric	Discolored
601	T311-5 25-A7	Teflon FEP/Ag/Inconel, 2 mil, Sheldahl	Hazed, buckled
602	T311-5 26-A8	Teflon FEP/Ag/Inconel, 5 mil, Sheldahl	Hazed
603	T311-5 27-A9	In2O3/Teflon FEP/Ag/Inconel, 5 mil, General Electric	Hazed, crazed
604	T311-5 28-A10	Kapton/Al, 1 mil, Sheldahl	Darkened, contaminated (stain)
605	T311-5 29-A11	Kapton/Al, 5 mil, Sheldahl	Contaminated (stain)
606	T311-5 30-A12	In2O3/Kapton/Al, 5 mil, General Electric	Contaminated (stain)
607	T311-5 31-A13	White paint, Z93 IITRI	Discolored, crystallized
608	T311-5 32-A14	White paint, S13GLO IITRI	Discolored (+)
609	T311-5 33-A15	White paint, YB 71 IITRI	Discolored (-), crystallized
610	T311-5 34-A16	White paint, NS 43G, NASA Goddard Space Flight Center	Discolored (+), crystallized
611	T311-5 35-A17	White paint, Eu2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+)
612	T311-5 36-B3	Au mirror/Al	Darkened
613	T311-5 37-B4	Al mirror/glass	Discolored
614	T311-5 38-B5	Ag mirror/Al	Discolored, cratered
615	T311-5 39-B6	Ag mirror/Al	Corroded, contaminated (stain)
616	T311-5 40-A18	White paint, alpha-Al2O3/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+)
617	T311-5 41-A19	White paint, PV100 TiO2/silicone resm, ML101, Air Force Materials Laboratory	Discolored, crazed, contaminated (particle)
618	T311-5 42-A20	White paint, TiO2/RTV 602, ML101, Air Force Materials Laboratory	Discolored (+), contaminated (particle)
619	T311-5 43-A21	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	Discolored, wrinkled, crazed
620	T311-5 44-A22	White paint, DC92-007 TiO2/RTV 3140, Rockwell Int	Discolored, wrinkled, contaminated (particle)
621	T311-5 45-03	Coated quartz crystal microbalance (OCM) active, 150A In2O3/9000A Al-Al2O3	Discolored, contaminated (stain)
622	T311-5 46-04	Coated quartz crystal microbalance (OCM) passive, 150A ZnS/9000A Al-Al2O3	Contaminated (particle)
623	T311-5 47-4	Thermoluminescent dosimeter, LiF	Buckled, contaminated (particle)
624	T311-5 48-BG06	Low scatter black glass	Bleached, cratered
625	T311-5 49-S06	Aluminized fused silica mirror	Hazed
626	T311-5 50-N03	Low scatter nickel mirror	Contaminated (particle, stain)
627	T311-5 51-I11	Ag/Teflon FEP covered cassette containing 11 sun pumped laser coatings	Cover: roughened, discolored
628	T311-5 52-IA&B	Ag/Teflon FEP covered cassette holding 26 laser communication coatings and optical materials	Cover: roughened, discolored
629	T311-5 53-A7	WO3 (UV treated)/polyurethane/Al substrate	Discolored
630	T311-5 54-B7	WO3 (UV treated)/IR dye/Al substrate	Discolored
631	T311-5 55-C7	WO3 (UV treated)/polyurethane/Al substrate	Discolored
632	T311-5 56-23	Mirror, Al2O3 coating, lambda/2 thick @ 2.7 μ m, CaF2 substrate	Unchanged
633	T311-5 57-3	Solar cell coating	Hazed, microfractured
634	T311-5 58-F	Composite (unknown fiber/matrx)	Contaminated (stain)
635	T311-5 59-2	Al2O3 coating on SiO2 substrate	Microfractured, flaked
636	T311-5 60-4	Si coating on SiO2 substrate	Contaminated (particle)
637	T311-5 61-7	ThF4 coating on SiO2 substrate	Microfractured
638	T311-5 62-8	PbF2 coating on SiO2 substrate	Contaminated (particle)
639	T311-5 63-12	As2Se3 coating on SiO2 substrate	Crazed, discolored

DBS	Sample ID	Description	Post-Flight Condition
640	T311 7-64 11	ZnS coating on SiO2 substrate	Buckled, blistered
641	T311 15 65 O1	Black chrome coating on molybdenum substrate	Bleached, crazed
642	T311 15-66-P1	Rhodium test bonded with DC 6-1104 to aluminum substrate	Discolored (-), cratered
643	T311 15-67 O1	Indium test bonded with DC 6-1104 to aluminum substrate	Discolored
644	T311 15-68 R1	Polished molybdenum mirror	Discolored, corroded
645	T311 15 69 S1	Sputtered black rhodium coating on polished molybdenum substrate	Bleached, contaminated (particle)
646	T311 15 70 T1	Sputtered black rhodium coating on polished molybdenum substrate	Crazed, flaked
647	T311 15 71 U1	Sputtered black rhodium coating on polished molybdenum substrate	Crazed, flaked
648	T311 18 72 V1	White thermal control paint YB 71/Al ITRI	Contaminated (stain)
649	T311 18 73 W1	Black thermal control paint D111/Al ITRI	Unchanged
650	T311 18 74 X	ZnSe crystal	Contaminated (particle)
651	T311 18 75 Y	Polypyrrolidone (P7C) film on Al	Contaminated (particle)
652	T311 16 76 G	HA 43 polyarylateylene (PAA)/polybenzimidazole fiber (PBI) composite	Unchanged
653	T311 9 1 CM22	GY70/CE 339 [(0/90)2/0]4T 250°F	Discolored
654	T311 9 2 CM4b	GY70/CE 339 [(0/2/90)2]T 250°F	Discolored (-), contaminated (stain)
655	T311 9 3 CM6a	150/F263 [(0/90)2/0]4T 350°F	Discolored (-)
656	T311 9 4 CM8b	150/F263 [(0/2/90)2]T 350°F	Discolored (-)
657	T311 9 5 CM10a	T 50(PAN)/934[(0/90)2/0]4T 350°F	Discolored
658	T311 9 6 CM14b	T 50(PAN)/X904B-10[(0/90)2/0]4T 350°F	Discolored
659	T311 9 7 CM18b	T 50(PAN)/E788[(0/90)2/0]4T 350°F	Discolored (-)
660	T311 9 8 CM42a	KEVLAR/epoxy K49 fabric/X904B [(0/2/90)2]T 350°F	Discolored
661	T311 9 9 CM44b	150/F263 [(0/90)2/0]4T 250°F	Discolored
662	T311 9 10 CM30a	Celion 6000/E788[(0/90)2/0]4T 350°F	Discolored
663	T311 9 11 CM32c	GY70/CE 339[(45/-45/-45/-45)4]T 250°F	Discolored
664	T311 9 12 CM7c	150/F263 [(45/-45/-45/-45)4]T 350°F	Discolored
665	T311 9 13 CM11c	T 50(PAN)/934[(45/-45/-45/-45)4]T 350°F	Discolored (-)
666	T311 9 14 CM15b	T 50(PAN)/X904B-10[(45/-45/-45/-45)4]T 350°F	Discolored (-)
667	T311 9 15 CM19c	T 50(PAN)/E788[(45/-45/-45/-45)4]T 350°F	Discolored (-)
668	T311 9 16 CM38b	KEVLAR/epoxy K49 fabric/X904B [(45/45)4]T 350°F	Discolored (+)
669	T311 9 17 CM45b	T 50/F263 [(45/-45/-45/-45)4]T 300°F	Discolored (+)
670	T311 9 18 CM31a	Celion 6000/E788[(45/-45/-45/-45)4]T 350°F	Discolored (-)
671	T311 9 19 AB2 1	HMF 330C/934-2024-HMF 330C/934 (9628) 250°F	Discolored
672	T311 9 20 AB2 5	HMF 330C/934-2024-HMF 330C/934 (9628) 250°F	Discolored (+)
673	T311 9 21 AB2 7	HMF 330C/934-2024-HMF 330C/934 (9628) 250°F	Discolored (+)
674	T311 9 22 AB2 9	HMF 330C/934-2024-HMF 330C/934 (9628) 250°F	Discolored (+)
675	T311 9-23-CM12b	T 50(PAN)/934[(0/2/90)2]T 350°F	Discolored, contaminated (stain), distorted
676	T311 9-24-CM16b	T 50(PAN)/X904B-10[(0/2/90)2]T 350°F	Discolored, distorted
677	T311 9 25 CM20a	T 50(PAN)/E788[(0/2/90)2]T 350°F	Discolored, distorted
678	T311 9 26-CM28b	HMS/1501 SA[(0/2/90)2]T 290°F	Discolored, stained, distorted
679	T311 9 27 CM46a	150/F263 [(0/2/90)2]T 300°F	Discolored (-), distorted

Obs	Sample ID	Description	Post-Flight Condition
680	T311 9-28 AM32b	Celcon 6002/E788[0]2[90]217 353-F	Discolored, distorted
681	T311 9-29 AM1B	Gold-plated woven Dacron mesh	Unchanged, discolored (holder)
682	T311 9-30 AM2c	Gold-plated knitted Dacron mesh	Unchanged, discolored (holder)
683	T311 9-31 AM3c	Plastic metal mesh laminate	Unchanged, discolored (holder)
684	T311 9-32 AM4c	Solid plastic metal laminate	Buckled (-); discolored (holder)
685	T311 9-33 AM1c	Gold-plated woven Dacron mesh	Unchanged, discolored (holder)
686	T311 9-34 AM2b	Gold-plated knitted Dacron mesh	Buckled, discolored (holder)
687	T311 9-35 AM3d	Plastic metal mesh laminate	Buckled (-); discolored (holder)
688	T311 9-36 AM4a	Solid plastic metal laminate	Buckled, contaminated (particle) discolored (holder)
689	T311 3-37 III	Graphite polyimide	Unchanged
690	T311 3-38 III	Graphite polyimide	Unchanged
691	T311 3-39 IV	Special carbon/tungsten bearing resin	Contaminated (stain)
692	T311 3-40 IV	Special carbon/tungsten bearing resin	Contaminated (stain)
693	T311 3-41 IIIa	Aluminum 2024 Al-Cu alloy	Contaminated (particle)
694	T311 3-42 IIIa	Aluminum 2024 Al-Cu alloy	Contaminated (particle)
695	T311 19-43 C-00	Anodized aluminum mounting plate with MOS devices	Contaminated (particle)
695 01	T311 19-43 C-01	MOS devices	Crazed
695 02	T311 19-43 C-02	MOS devices	Contaminated (particle)
695 03	T311 19-43 C-03	MOS devices	Crazed, contaminated (stain)
695 04	T311 19-43 C-04	MOS devices	Contaminated (particle, stain)
695 05	T311 19-43 C-05	MOS devices	Contaminated (particle)
695 06	T311 19-43 C-06	MOS device	Contaminated (particle, stain)
695 07	T311 19-43 C-07	MOS devices	Contaminated (particle, stain)
695 08	T311 19-43 C-08	MOS devices	Contaminated (particle, stain)
695 09	T311 19-43 C-09	MOS Devices	Contaminated (particle, stain)
696	T311 19-44 D-00	Anodized aluminum mounting plate with GaAs FETs, bulk GaAs	Discolored, contaminated (particle)
696-01	T311 19-44 D-09	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-02	T311 19-44 D-10	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-03	T311 19-44 D-11	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-04	T311 19-44 D-12	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-05	T311 19-44 D-13	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-06	T311 19-44 D-14	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-07	T311 19-44 D-15	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-08	T311 19-44 D-16	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-09	T311 19-44 D-3639C	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
696-1	T311-19-44 D-3639D	GaAs FETs, bulk GaAs	Contaminated (stain, particle)
697	T311 3-45-V	Aluminum 6061-T6	Contaminated (stain, particle)
698	T311 3-46-V	Aluminum 6061-T6	Contaminated (stain, particle)
699	T311 3-47-VII	Pyrolytic carbon, Pyro Carb 431	Unchanged
700	T311 3-48-VII	Pyrolytic carbon, Pyro Carb 431	Unchanged

DBs	Sample ID	Description	Post-Flight Condition
701	T3111-3-49-I	Tape-wrapped carbon phenolic	Contaminated (stain)
702	T3111-3-50-I	Tape-wrapped carbon phenolic	Contaminated (stain)
703	T3111-3-51-IV	Graphite polysulfone	Contaminated (stain)
704	T3111-3-52-IV	Graphite polysulfone	Contaminated (stain)
705	T3111-3-53-II	Three dimensional quartz phenolic	Discolored, contaminated (stain)
706	T3111-3-54-II	Three dimensional quartz phenolic	Discolored, contaminated (stain)
707	T3111-8-55-31	Graphite/polymide (HTS 2 unidirectional tape/PMR 15 [0°])	Distorted
708	T3111-8-56-11	Graphite/epoxy (T-300 unidirectional tape/Fiberite EA934 epoxy resin [0°])	Discolored
709	T3111-8-57-S15	Silicon nitride 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	Contaminated (stain, particle)
710	T3111-8-58-S3	Silicon nitride 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	Contaminated (particle)
711	T3111-11-59-S03	Aluminized fused silica mirror	Contaminated (particle)
712	T3111-11-60-04	ZnSe infrared plate	Contaminated (particle), holder distorted
713	T3111-12-61-3	Thermoluminescent dosimeter, LiF	Cratered
714	T3111-11-62-3	Corning 7940 second surface aluminum mirror	Hazed, contaminated (particle)
715	T3111-9-63-CM3d	GY70/CE-339[-45/(+45)2/+45]4T, 250°F	Unchanged
716	T3111-9-64-CM7d	T50/F263[-45/(+45)2/+45]4T, 350°F	Discolored (-)
717	T3111-9-65-CM11a	T-50(PAN)/934[-45/(+45)2/+45]4T, 350°F	Contaminated (stain)
718	T3111-9-66-CM15c	T-50(PAN)/X904B-10[-45/(+45)2/+45]4T, 350°F	Contaminated (stain)
719	T3111-9-67-CM19d	T-50(PAN)/E788[-45/(+45)2/+45]4T, 350°F	Unchanged
720	T3111-9-68-CM38a	KEVLAR/epoxy K49 fabric/X904B (+45)4S, 350°F	Unchanged
721	T3111-9-69-CM45a	T-50/F263 [-45/(+45)2/+45]4T, 300°F	Contaminated (stain)
722	T3111-9-70-CM31b	Celion 6000/E788[-45/(+45)2/+45]4T, 350°F	Unchanged
723	T3111-9-71-AB2-11	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Contaminated (stain)
724	T3111-9-72-AB2-12	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Contaminated (stain)
725	T3111-9-73-AB2-13	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Discolored (-)
726	T3111-9-74-AB2-14	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	Contaminated (stain)
727	T311V-4-1-2	Standard 350 nm coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
728	T311V-4-2-6	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
729	T311V-4-3-10	Reflective 350 nm coating/CERIA, Delrin retainer, OCLI	Contaminated (particle)
730	T311V-4-4-14	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
731	T311V-4-5-18	HEA 31 coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
732	T311V-4-6-22	Mark III D coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
733	T311V-4-7-26	Mark III E coating/7940 fused silica, Delrin retainer, OCLI	Delaminated, contaminated (particle)
734	T311V-4-8-30	Contamination coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
735	T311V-4-9-34	Erosion coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
736	T311V-4-10-38	Erosion coating/7940 fused silica, Delrin retainer, OCLI	Contaminated (particle)
737	T311V-4-11-42	Mark IV coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
738	T311V-4-12-46	Contamination coating/7940 fused silica, Delrin retainer, OCLI	Microfractured, contaminated (particle)
739	T311V-4-13-50	7070 fused silica, Delrin retainer, OCLI	Contaminated (particle)
740	T311V-4-14-54	7940 fused silica, Delrin retainer, OCLI	Microfractured

DB#	Sample ID	Description	Post-Flight Condition
741	T31V 4 15 56	7940 fused silica. Deton retainer. OCL1	Contaminated (particle)
742	T31V 4 16 62	Cera. Deton retainer. OCL1	Microfractured, contaminated (particle)
743	T31V 18 17	White thermal control paint. S13GLO/6061 Al. ITRI	Discolored (+), crazed
744	T31V 18 18	White thermal control paint. S13GLO/6061 Al. ITRI	Discolored (+), crazed
745	T31V 4 19 C	HESP II silicon cells. 5 cell string	Microfractured
746	T31V 4 20 GA2	HESP II GaAs cells. 5 cell string	Discolored
747	T31V 4 21 VJ2	Vertical junction silicon cells. 5 cell string	Microfractured, discolored
748	T31V 4 22 B	High performance silicon cells. 5 cell string	Microfractured, discolored
749	T31V 4 23 X4	Conventional silicon cells. 5 cell string	Debonded, discolored
750	T31V 9 24 CM12	GY70-CE 339 [(0)16]T 250°F	Discolored
751	T31V 9 25 CM5b	150/F263 [(0)16]T 350°F	Bleached
752	T31V 9 26 CM9b	T 50(PAN)/X904B-10 [(0)16]T 350°F	Discolored
753	T31V 9 27 CM13a	T 50(PAN)/X904B-10 [(0)16]T 350°F	Discolored
754	T31V 9 28 CM17b	T 50(PAN)/E788 [(0)16]T 350°F	Discolored
755	T31V 9 29 CM342	HMF 176/34 (-45)4S 350°F	Discolored
756	T31V 9 30 CM43b	T 50/F263 [(0)16]T 300°F	Discolored, contaminated (particle)
757	T31V 9 31 CM29b	Cefon 6000/E788 [(0)16]T 350°F	Discolored
758	T31V 9 32 CM22b	HMF 176/34 fabric [(0)16]T 350°F	Discolored
759	T31V 9 33 CM41q	HMF 176/34 fabric [(0)2/(90)2]T 350°F	Discolored
760	T31V 9 34 CM37b	KEVLAR/epoxy K49 fabric/X904B [(0)16]T 350°F	Discolored
761	T31V 9 35 CM39b	E glass fabric/CE-339 [(0)16]T 250°F	Discolored, cratered
762	T31V 9 36 TC9	Coated molybdenum foil/1 4μ SiO2	Discolored
763	T31V 9 37 TC9	Coated molybdenum foil/1 4μ SiO2	Cratered
764	T31V 9 38 TC10	Coated molybdenum foil/ P238 filter (A1203)	Contaminated (particle)
765	T31V 9 39 TC10	Coated molybdenum foil/ P238 filter (A1203)	Discolored, hazed
766	T31V 9 40 TC11	Coated molybdenum foil/ Si3N4	Distorted
767	T31V 9 41 TC11	Coated molybdenum foil/ Si3N4	Distorted
768	T31V 9 42 TC12	Polyurethane white paint. Chemglaze A276/11	Discolored
769	T31V 9 43 TC12	Polyurethane white paint. Chemglaze A276/11	Discolored
770	T31V 9 44 TC13	Polyurethane black paint. Chemglaze Z306	Bleached
771	T31V 9 45 TC13	Polyurethane black paint. Chemglaze Z306	Bleached
772	T31V 9 46 TC5	Teflon FEP polymer coating Spraylon 7075	Discolored
773	T31V 9 47 TC5	Teflon FEP polymer coating Spraylon 7075	Discolored
774	T31V 9 48 TC2	Silicone paint black vacuum distilled RTV 602	Crazed
775	T31V 9 49 TC2	Silicone paint black vacuum distilled RTV 602	Crazed, cratered
776	T31V 9 50 TC3	White silicone high temperature paint Sperex AP-101	Discolored, wrinkled
777	T31V 9 51 TC3	White silicone high temperature paint Sperex AP-101	Discolored, wrinkled
778	T31V 9 52 TC6	Ceramic coating white borated silica	Discolored, contaminated (particle, stain)
779	T31V 9 53 TC6	Ceramic coating white borated silica	Discolored, contaminated (particle)
780	T31V 9 54 TC7	Ceramic coating black borated silica coating	Bleached (-)

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DB#	Sample ID	Description	Post-Flight Condition
781	T31V 9 55 TC7	Ceramic coating black borated silica coating	Bleached (-)
782	T31V 9 56 TC8	Ceramic coating black HS 4 on LI-900	Roughened, textured
783	T31V 9 57 TC8	Ceramic coating black HS 4 on LI-900	Roughened, textured
784	T31V 9 58 TC4	Black silicone high temperature paint Sperex SP 102	Bleached
785	T31V 9 59 TC4	Black silicone high temperature paint Sperex SP-102	Bleached
786	T31V 9 60 TC1	Teflon FEP polymer coating Spraylon 7075	Discolored, distorted
787	T31V 9 61 TC1	Teflon FEP polymer coating Spraylon 7075	Discolored, distorted
788	T31V 8 62 183 4	Thin film solar cell, CuInSe2/CdS	Missing
789	T31V 8 63 8	Thin film solar cell, standard Si	Missing
790	T31V 8 64 7	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Discolored (+)
791	T31V 8 65 9	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Discolored (+)
792	T31V 8 66 11	Composite to composite (T 300/934) adhesive joint/Hysol EA 9628 epoxy	Discolored
793	T31V 8 67 25	Graphite/polysulfone (T 300/ P-1700 polysulfone resin [0°/90°])	Discolored
794	T31V 8 68 103	Graphite/epoxy (conditioned) (T 300 unidirectional tape/Fiberite EA 934 epoxy resin [0°])	Crazed
795	T31V 15 69 22	Rhodium coated glassy carbon substrate	Hazed, flaked
796	T31V 17 70 1	Thermoluminescent dosimeter LiF	Unchanged
796.5	T3 V	Various materials, composites and metals	Discolored, cratered
797	T31V 4 71 3	Standard 350nm coating on 7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
798	T31V 4 72 7	Reflective 350nm coating on 7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
799	T31V 4 73 11	Reflective 350 nm coating on Ceria Delrin retainer, OCLI	Hazed, contaminated (particle)
800	T31V 4 74 15	Reflective 350nm coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
801	T31V 4 75 19	HEA coating 3 ton 7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
802	T31V 4 76 23	Mark III D coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
803	T31V 4 77 27	Mark III E coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
804	T31V 4 78 31	Contamination coating on 7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
805	T31V 4 79 35	Erosion coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, delaminated, contaminated (particle)
806	T31V 4 80 39	Erosion coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
807	T31V 4 81 43	Mark IV coating on 7940 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
808	T31V 4 82 47	Contamination coating on 7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
809	T31V 4 83 51	7070 fused silica Delrin retainer, OCLI	Microfractured, contaminated (particle)
810	T31V 4 84 55	7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
811	T31V 4 85 59	7940 fused silica Delrin retainer, OCLI	Contaminated (particle)
812	T31V 4 86 63	Ceria Delrin retainer, OCLI	Contaminated (particle)
813	T31V 16 87-A	HA-43 polyarylate/epoxy (PAA)/T300 carbon fabric composite	Hazed, microfractured, contaminated (particle)
814	T31V 16 88-B	Aerospace polyarylate/epoxy (PAA)/T300 carbon fabric composite	Contaminated (particle)
815	T31V 16 89-C	HA-43 polyarylate/epoxy (PAA)/polyphenylquinoxaline (PPO) blend/T300 carbon fabric composite	Contaminated (particle)
816	T31V 16 90-D	HA-43 polyarylate/epoxy (PAA)/polyphenylquinoxaline (PPO) blend/Low temp PAN composite	Contaminated (particle)
817	T6III 9-1 TC14-6	HA-43 polyarylate/epoxy (PAA)/polyphenylquinoxaline (PPO) blend/Low temp PAN composite	Unchanged
818	T6III 9-2 TC15-25	LMSC modified Cotonics 931 coating on Ta substrate	Unchanged
819	T6III 9-3 TC16 7	JB-1 Black coating on Ta substrate	Contaminated (stain, particle)
		Veslar coating on Al substrate	Crazed, bleached, contaminated (stain)
			Discolored (+), crazed (+), flaked

Post-Flight Condition

DBs	Sample ID	Description	Post-Flight Condition
820	T6III 9-4 TC17-3	GE SHC 1010 coating on Al substrate	Discolored (+)
821	T6III 9-5 TC18-3	Tedar (400BS30W11) bonded to Al with Isolack Y9469	Discolored (+), contaminated (particle)
822	T6III 9-6 TC19-3	Black oxide coating on 304 stainless steel substrate	Bleached, contaminated (stain)
823	T6III 10-7 GL2-2	Graphite/glass Celcon 6000/borosilicate glass	Cracked, contaminated (particle)
824	T6III 10-8 AL8-8	Muroi GY70/201/2024 clad (0/+60°)s	Unchanged
824-5	T6III 10-9 MG7	VS0054-EZ33A/AZ31B (0/+60°)s	Unchanged
825	T6III 9-9 CM47-3	Strip P75S/F593	Bleached (-)
826	T6III 9-9 CM47-6	Strip P75S/F593	Bleached (-)
827	T6III 9-10 CM48-1	Strip P75S/934	Contaminated (stain)
828	T6III 9-10 CM48-4	Strip P75S/934	Contaminated (stain)
828-01	T6III 10-10 AL7-6	Strip GY70/201/2024 clad (0/+60°)s	Unchanged
829	T6III 10-11 MG7-6	Strip P100/EZ33A/AZ31B (5 ply) epsl meas. SG20	Contaminated (stain)
830	T6III 10-12 AL7-4	Strip GY70/201/2024 clad (0/+60°)s epsil meas. SG19	Contaminated (stain, particle)
831-01	T6III 10-13-1	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
831-02	T6III 10-13-2	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
831-03	T6III 10-13-3	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
831-04	T6III 10-13-4	Wire P100/AZ612 (Ti + B)	Contaminated (stain)
832-01	T6III 10-13-5	Wire P-5 (TiO2)/6061 Al (Ti + B)	Contaminated (stain)
832-02	T6III 10-13-6	Wire P-55 (TiO2)/6061 Al (Ti + B)	Contaminated (stain)
833-01	T6III 10-13-7	Wire GY70 (8T)/201	Contaminated (stain)
833-02	T6III 10-13-8	Wire GY70 (8T)/201	Contaminated (stain)
834-01	T6III 10-13-9	Wire P-55/6061Al (Ti + B)	Contaminated (stain)
834-02	T6III 10-13-10	Wire P-55/6061 (Ti + B)	Contaminated (stain)
835	T6III 10-13-11	Wire T300/6061Al	Contaminated (stain)
836	T6III 10-14-12	Wire T300/6061Al	Contaminated (stain)
837-01	T6III 10-14-13	Wire P100/6061Al (Ti + B)	Contaminated (stain)
837-02	T6III 10-14-14	Wire P100/6061Al (Ti + B)	Contaminated (stain)
837-03	T6III 10-14-15	Wire P100/6061Al (Ti + B)	Contaminated (stain)
837-04	T6III 10-14-16	Wire P100/6061Al (Ti + B)	Contaminated (stain)
838-01	T6III 10-14-17	Wire P-55 (10K) 6061Al	Contaminated (stain)
838-02	T6III 10-14-18	Wire P-55 (10K) 6061Al	Contaminated (stain)
838-03	T6III 10-14-19	Wire P-55 (10K) 6061Al	Contaminated (stain)
838-04	T6III 10-14-20	Wire P-55 (10K) 6061Al	Contaminated (stain)
839-01	T6III 10-14-21	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
839-02	T6III 10-14-22	Wire P100/AZ31B (Ti + B)	Contaminated (stain)
840	T6III 10-15-AL3-12	Strip GY70/201/2024 clad (0) epsl meas. SG18	Contaminated (stain)
841	T6III 10-16-AL14-11	Strip P-55/6061/6061Al (9) epsl meas. SG17, CTS1	Contaminated (stain)
842	T6III 10-17-AL15-4	Strip P-55/6061/6061Al (90) epsl meas. SG16	Contaminated (stain)
843	T6III 10-18-AL4-3	Strip GY70/201/2024 clad (90)	Contaminated (stain)
844	T6III 10-19-AL4-4	Strip GY70/201/2024 clad (90)	Contaminated (stain)

DB#	Sample ID	Description	Post-Flight Condition
845	T6III 10 20 AL3 5	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
846	T6III 10 21 AL5 5	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
847	T6III 10 22 AL5 11	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
848	T6III 10 23 AL5 12	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
849	T6III 10 24 EP1 4	Strip. GY70:X-30 (0/45/90/135)4	Contaminated (stain)
850	T6III 10 25 MG9 11	Strip. P100/AZ91C:AZ61A (90)	Distorted, dulled, contaminated (stain)
851	T6III 10 26 PS5 3	Revoted lap. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, cracked, contaminated (stain)
852	T6III 10 27 PS5 4	Revoted lap. 722(Graphite/Glass weave)/P1700/TiO2 coating	Discolored (+), cracked, contaminated (stain)
853	T6III 10 28 SS1 9	Strip. Invar LR35	Contaminated (stain)
854	T6III 10 29 EP22 5	Strip. GY70/CE339 (0/45/90/135)S2	Contaminated (stain)
855	T6III 10 30 PS2 5	Strip. W 722(Graphite/Glass fabric)/P1700	Contaminated (stain)
856	T6III 10 31 PS2 6	Strip. W 722(Graphite/Glass fabric)/P1700	Contaminated (stain)
857	T6III 10 32 PS3 3	Strip. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (+), cracked, contaminated (stain), crat
858	T6III 10 33 PS3 4	Strip. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (+), cracked, contaminated (stain)
859	T6III 10 34 EP3 5	Strip. T300 tape/934 (0)	Contaminated (stain)
860	T6III 9 35 MPS C 1	Strip. LAC 23 4688 elastomer	Crazed (+), distorted (+), buckled
861	T6III 10 36 EP3 6	Strip. T300 tape/934 (0)	Contaminated (stain)
862 01	T6III 10 37 23	Wire. P100/AZ318 (Ti + B)	Contaminated (stain)
863 02	T6III 10 37 24	Wire. P55 (10K) AZ91C	Contaminated (stain)
863 03	T6III 10 37 25	Wire. P55 (10K) AZ91C	Contaminated (stain)
863 04	T6III 10 37 26	Wire. P55 (10K) AZ91C	Contaminated (stain)
864 01	T6III 10 38 27	Wire. SiC/6061Al	Contaminated (stain)
864 02	T6III 10 38 28	Wire. SiC/6061Al	Distorted, contaminated (stain)
864 03	T6III 10 38 29	Wire. SiC/6061Al	Contaminated (stain)
864 04	T6III 10 38 30	Wire. SiC/6061Al	Contaminated (stain)
864 05	T6III 10 38 31	Wire. SiC/6061Al	Contaminated (stain)
864 06	T6III 10 38 32	Wire. SiC/6061Al	Contaminated (stain)
864 07	T6III 10 38 33	Wire. SiC/6061Al	Contaminated (stain)
864 08	T6III 10 38 34	Wire. SiC/6061Al	Contaminated (stain)
864 09	T6III 10 38 35	Wire. SiC/6061Al	Contaminated (stain)
864 11	T6III 10 38 36	Wire. SiC/6061Al	Contaminated (stain)
864 12	T6III 10 38 37	Wire. SiC/6061Al	Contaminated (stain)
864 13	T6III 10 38 38	Wire. SiC/6061Al	Contaminated (stain)
864 14	T6III 10 38 39	Wire. SiC/6061Al	Contaminated (stain)
864 15	T6III 10 38 40	Wire. SiC/6061Al	Contaminated (stain)
864 16	T6III 10 38 41	Wire. SiC/6061Al	Contaminated (stain)
864 17	T6III 10 38 42	Wire. SiC/6061Al	Contaminated (stain)
864 18	T6III 10 38 43	Wire. SiC/6061Al	Contaminated (stain)
864 19	T6III 10 38 44	Wire. SiC/6061Al	Contaminated (stain)
865	T6III 10 39 AL15 13	Strip. VSB32/6061 T6/6061 Al clad. (90), epsi meas. SG15	Contaminated (stain)

Post-Flight Condition

DBS	Sample ID	Description	Post-Flight Condition
866	T6III 10 40 SS1 2	Strip. Invar LR35. epsl meas. SG14	Contaminated (stain)
867	T6III 10 41 SS1 4	Strip. Invar LR35. epsl meas. SG13. CTS-2	Contaminated (stain)
868	T6III 10 42 AL12 7	Strip. VSB325061-T6/6061 Al clad (0)	Contaminated (stain)
869	T6III 10 43 AL12 8	Strip. VSB325061-T6/6061 Al clad (0)	Contaminated (stain)
870	T6III 10 44 AL12 9	Strip. VSB325061-T6/6061 Al clad (0)	Contaminated (stain)
871	T6III 10 45 MG9 T3	Strip. P100/AZ91C/AZ61A (90)	Distorted, dulled, contaminated (stain)
872	T6III 10 46 AL3 6	Strip. GY70/201/2024 clad. (0)	Contaminated (stain)
873	T6III 10 47 MG5 13	Strip. VS0054/EZ33A/AZ31B clad (0)	Distorted, dulled, contaminated (stain)
874	T6III 10 48 PS3 6	Strip. W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (+), crazed, contaminated (stain)
875	T6III 10 49 PS4 2	Strip. W 722(Graphite/Glass fabric)/P1700/ZnO coating	Discolored (+), crazed, contaminated (stain)
876	T6III 10 50 PS5 6	Rivoted lap W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, crazed, contaminated (stain)
877	T6III 10 51 PS6 2	Rivoted lap W 722(Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, crazed, contaminated (stain)
878	T6III 10 52 PS4 5	Strip. W 722(Graphite/Glass fabric)/P1700/ZnO coating	Discolored, crazed
879	T6III 10 53 PS4 6	Strip. W 722(Graphite/Glass fabric)/P1700/ZnO coating	Discolored (+), crazed, contaminated (stain)
880	T6III 10 54 GL1 2	Strip. graphite/glass Celcon 6000/borosilicate glass	Unchanged
881	T6III 10 55 EP12 3	Strip. P75S/934. (0/45/90/135)S2	Contaminated (stain)
882	T6III 10 56 EP12 4	Strip. P75S/934. (0/45/90/135)S2	Contaminated (stain)
883	T6III 10 57 EP4 6	Strip. AS/3501 5 (0)	Discolored
884	T6III 10 58 EP4 7	Strip. AS/3501 6 (0)	Discolored
885	T6III 9 59 S0 J	Strip. Solidal J coating (A. DC93-500/ B. R 2500)	Crazed, discolored, contaminated (stain), cratered
887	T6III 9 61 S0 C	Strip. Solidal C coating. (A. Electrodag 502/ B. Electrodag 501)	Discolored, contaminated (stain)
889	T6III 10 63 EP3 2	Strip. T300 tape/934. epsl meas. SG12. CTS 13	Discolored
890	T6III 10 64 EP4 3	Strip. AS/3501 6. epsl meas. SG11	Contaminated (stain)
891	T6III 10 65 P15 3	Strip. T300/V378A (0/45/90/135)S2. epsl meas. SG10	Contaminated (stain)
892	T6III 10 66 P12 2	Strip. T300/P1700 (0/90). epsl meas. SG9	Discolored
893	T6III 10 67 P12 2	Strip. graphite/LARC 160. epsl meas. SG8	Contaminated (stain)
894	T6III 10 68 EP1 3	Strip. GY70/X-30 (0/45/90/135)S2. epsl meas. SG7	Discolored
895	T6III 10 69 MG9 L6	Strip. P100/AZ91C/AZ61A (0)	Contaminated (stain)
896	T6III 10 70 MG4 3	Strip. VS0054/EZ33A/AZ31B. (90)	Contaminated (stain)
897	T6III 10 71 MG4 14	Strip. VS0054/EZ33A/AZ31B. (90)	Distorted, dulled
898	T6III 10 72 P11 6	Strip. Celcon 6000/PMR-15. epsl meas. SG3	Distorted, contaminated (stain)
899	T6III 10 73 PS11 2	Strip. T300/polyether sulfone. epsl meas. SG2	Contaminated (stain)
900	T6III 10 74 MG5-22	Strip. VS0054/EZ33A/AZ31B clad. (0). epsl meas. SG1	Discolored
901	T6III 10 75 MG9 L7	Strip. P100/AZ91C/AZ61A (0*)	Contaminated (stain)
902	T6III 10 76 EP13 4	Strip. GY70/934 (0/45/90/135)S2	Distorted, contaminated (stain)
903	T6III 10 77 EP15 2	Strip. T300 fiber/5208/ZnO coating	Contaminated (stain)
904	T6III 10 78 EP14 1	Strip. T300 fiber/5208/W-Al flake coating	Discolored (+)
905	T6III 10 79 AL6 3	Strip. GY70/201/2024 clad (90)	Contaminated (stain)
906	T6III 10 80 EP10 2	Strip. E glass 120 fabric/9064B. (0)	Discolored
907	T6III 10 81 PS6 5	Rivoted lap. W-722 Graphite/Glass fabric/P1700/ZnO coating	Discolored (+)

DB#	Sample ID	Description	Post-Flight Condition
908	T6III 10 82 PS6-6	Rotated lap. W-722 Graphite/Glass fabric/P1700/ZnO coating	Discolored (+), contaminated (stain)
909	T6III 10 83 EP5-2	Strip. GY70/X904B. (0)	Bleached
910	T6III 10 84 EP6-2	Strip. GY70/X904B. (0/90/90/0)	Contaminated (stain)
911	T6III 9 85 MPS C 2	Strip. LAC 23 4688, elastomer	Crazed (+), distorted (+), outgassed (+)
912	T6III 10 86 EP7-2	Strip. GY70/X904B 1-45/2-45/4T	Contaminated (stain), cratered
913	T6III 10 87 EP22-2	Strip. GY70/CE 339 (0/45/90/135)S2	Contaminated (stain)
914	T6III 10 88 AL14 16	Strip. VS832/6061 T6/6061 Al clad (0)	Unchanged
915	T6III 10 89 P11-5	Strip. Celion 6000/PMR 15 (0)	Contaminated (stain)
916	T6III 10 90 P12-4	Strip. T300/V378A-160	Contaminated (stain)
917	T6III 10 91 PS1-4	Strip. T300 fabric/P1700 (0.90)	Contaminated (stain), crazed
918	T6III 10 92 MG6-3	Strip. VS0054/EZ33A/AZ31B clad (90)	Distorted, contaminated (stain)
919	T6III 10 93 AL31-3	Strip. SiC whiskers/6061Al	Contaminated (stain, particle)
920	T6III 10 94 AL30-1	Strip. SiC whiskers/2124 Al	Contaminated (stain, particle)
921	T6III 10 95 AL6-7	Strip. GY70/201/2024 clad. (90)	Distorted, contaminated (stain)
922	T6III 10 96 AL14-4	Strip. VS832/6061-T6/6061 Al clad (0)	Contaminated (stain)
923	T6III 10 97 AL32-6	Strip. SiC fiber, SC S2/Al	Contaminated (stain)
924	T6III 10 98 PS13-1	Strip. T300/polyether sulfone/ZnO coating	Discolored (+), contaminated (particle)
925	T6III 10 99 PS13-2	Strip. T300/polyether sulfone/ZnO coating	Discolored (+), contaminated (particle)
926	T6III 10 100 MG3-18	Strip. VS0045/EZ33A/AZ31B, clad (0) epsilon meas. SG6, CTS 4	Contaminated (stain)
927	T6III 10 101 PS2-2	Strip. W-722 (Graphite/Glass fabric)/P1700 epsilon meas. SG5	Discolored, contaminated (stain), crazed
928	T6III 10 102 EP22-8	Strip. GY70/CE339 (0/45/90/135)S2 epsilon meas. SG4	Bleached
929	T6III 10 103 MG5-3	Strip. VS0054/EZ33A/AZ31B clad. (0)	Distorted, contaminated (stain)
930	T6III 10 104 EP13-3	Strip. GY70/934 (0/45/90/135)S2	Contaminated (stain)
931	T6III 9 105 MPS C 4	Strip. LAC23-4688, elastomer	Crazed (+), distorted (+), outgassed (+)
932	T6III 10 106 AL32-7	Strip. SiC fiber, SC S2/Al	Contaminated (stain)
933	T6III 10 107 PS14-1	Strip. T300/polyether sulfone/TiO2 coating	Discolored (+)
934	T6III 10 108 PS12-1	Strip. T300/polyether sulfone/with lead/Al coating	Contaminated (stain)
935	T6III 10 109 EP2-5	Strip. GY70/X-30(0/45/90/135)S2, Sn in Eutectic coating	Contaminated (stain)
936	T6III 10 110 AL33-1	Strip. P100/201/2024 Al (1-20"/20")S	Contaminated (stain)
937	T6III 10 111 AL33-8	Strip. P100/201/2024 Al (1-20"/20")S	Contaminated (stain)
938	T6III 10 112 MG10-4	Strip. P100/AZ91C/AZ61A (1-10"/10")S	Dulled, discolored
939	T6III 10 113 MG10-6	Strip. P100/AZ91C/AZ61A (1-10"/10")S	Dulled, cratered
940	T6III 10 114 EP21-3	Strip. P75S/CE-339. (0/45/90/135)S4	Contaminated (stain)
941	T6III 10 115 EP21-4	Strip. P75S/CE-339. (0/45/90/135)S4	Discolored
942	T6III 9 116 WI	Coated wire. MIL-W-22759/32	Discolored (+), cracked
943	T6III 10 117 P15-5	Strip. T300/V378A. (0/45/90/135)S2	Contaminated (stain)
944	T6III 10 118 P15-6	Strip. T300/V378A. (0/45/90/135)S2	Contaminated (stain)
945	T6III 10 119 PS1-10	Strip. T300 fabric/P1700. (0.90)	Discolored
946	T6III 9-120-SO Q	Strip. Solder O coating: 1A, DC93-500/ B, R-2501)	Crazed, discolored, contaminated (stain)
948	T6III 10 122 P16	Strip. Celion 6000/polyimide	Contaminated (stain)

Obs	Sample ID	Description	Post-Flight Condition
949	T6III 9-123 TC14 9	LMSC modified Cotronics 931 coating on Ta substrate	Unchanged
950	T6III 9-124 TC15-29 JB-1	Black coating on Ta substrate	Crazed
951	T6III 9-125 TC16 8	Vestlar coating on Al substrate	Crazed, flaked
952	T6III 9-126 TC17 5	GE-SHC 1010 coating on Al substrate	Unchanged
953	T6III 9-127 TC18 4	Tedlar (4008S30W11) bonded to Al with Isolack Y9469	Contaminated (particle)
954	T6III 9-128 TC19 4	Black oxide coating on 304 stainless steel substrate	Unchanged
955	T6III 10-129 AL6 3	Mirror GY70/201/2024 clad. (0.160")s	Unchanged
956	T6III 10-130 AL8 5	Mirror GY70/201/2024 clad. (0.160")s	Unchanged
957	T6III 9-131 CM47 1	Sirp P75S/F593 102 270	Contaminated (stain)
958	T6III 9-131 CM47 4	Sirp P75S/F593 102-270	Contaminated (stain)
959	T6III 10-131 AL7 3	Sirp GY70/201/2024 clad (0.160")s	Contaminated (stain)
960	T6III 9-132 CM48 2	Sirp P75S/934 102 15A	Contaminated (stain)
961	T6III 9-132 CM48 5	Sirp P75S/934 102 15A	Contaminated (stain)
962	T6III 10-132 AL7 7	Sirp GY70/201/2024 clad. (0.160")s	Contaminated (stain)
963	T6III 10-133 AL7 14	Sirp GY70/201 clad (0.160")s	Unchanged
964	T6III 10-133 AL7 15	Sirp GY70/201 clad (0.160")s	Unchanged
965	T6III 10-134 AL7 12	Sirp GY70/201 clad (0.160")s	Unchanged
966	T6III 10-134 AL7 13	Sirp GY70/201 clad (0.160")s	Unchanged
967	T6III 10-135 1	Wire P100/AZ61A (Ti + B)	Contaminated (stain)
968	T6III 10-135 2	Wire P55 (TiO2)/6061 Al (Ti + B)	Unchanged
969	T6III 10-135 3	Wire GY70 (81)/201	Unchanged
970	T6III 10-135 4	Wire P55/6061 Al (Ti + B)	Unchanged
971	T6III 10-135 5	Wire T300/6061Al	Unchanged
972	T6III 10-135 6	Wire P100/6061 Al (Ti + B)	Unchanged
973	T6III 10-135 7	Wire P55 (10K)/6061Al	Unchanged
974	T6III 10-135 8	Wire P100/AZ31B (Ti + B)	Unchanged
975	T6III 10-135 9	Wire P55 (10K)/AZ91C	Contaminated (stain)
976	T6III 10-135 10	Wire SiC/6061Al	Contaminated (particle)
977 01	T6III 10-136 11	Wire SiC/6061Al	Unchanged
977 02	T6III 10-136 12	Wire SiC/6061Al	Unchanged
977 03	T6III 10-136 13	Wire SiC/6061Al	Unchanged
977 04	T6III 10-136 14	Wire SiC/6061Al	Unchanged
978	T6III 10-137 AL3 10	Sirp GY70/201/2024 clad. (0)	Contaminated (stain)
979	T6III 10-138 AL3 11	Sirp GY70/201/2024 clad. (0)	Distorted
980	T6III 10-139 AL3 13	Sirp GY70/201/2024 clad. (0)	Unchanged
981	T6III 10-140 AL4 7	Sirp GY70/201/2024 clad. (90)	Unchanged
982	T6III 10-141 AL4 8	Sirp GY70/201/2024 clad. (90)	Unchanged
983	T6III 9-142 MPS-C-5	Sirp LAC 23-4686 elastomer	Unchanged
984	T6III 10-143 AL5 6	Sirp GY70/201/2024 clad. (0)	Distorted, contaminated (particle)
985	T6III 10-144 AL5 13	Sirp GY70/201/2024 clad. (0)	Unchanged

DB#	Sample ID	Description	Post-Flight Condition
986	T6III 10 145-AL5-14 Strip.	GY70/201/2024 clad. (0)	Unchanged
987	T6III 10 146-EP1-7 Strip.	GY70/X-30 (0/45/90/135)4	Unchanged
988	T6III 10 147-EP1-8 Strip.	GY70/X-30 (0/45/90/135)4	Contaminated (stain)
989	T6III 10 148-PS5-8 Riveted lap.	W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Discolored (-), cracked
990	T6III 9 149-MPS-C-6 Strip.	LAC 23-4688, elastomer	Distorted, contaminated (particle)
991	T6III 10 150-SS1-10 Strip.	Invar LR35	Distorted
992	T6III 10 151-PS2-10 Strip.	W-722 (Graphite/Glass fabric)/P1700	Contaminated (stain)
993	T6III 10 152-PS2-11 Strip.	W-722 (Graphite/Glass fabric)/P1700	Discolored, contaminated (stain)
994	T6III 10 153-PS2-12 Strip.	W-722 (Graphite/Glass fabric)/P1700	Discolored
995	T6III 10 154-PS3-10 Strip.	W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Contaminated (stain), cracked
996	T6III 10 155-PS3-11 Strip.	W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Discolored, cracked
997	T6III 10 156-EP3-10 Strip.	T300 tape/934 (0)	Unchanged
998	T6III 10 157-EP3-11 Strip.	T300 tape/934 (0)	Contaminated (stain)
999	T6III 10 158-EP3-12 Strip.	T300 tape/934 (0)	Contaminated (stain)
1000	T6III 10 161-AL6-4 Strip.	GY70/201/2024 clad. (90)	Unchanged
1003	T6III 10 162-AL6-8 Strip.	GY70/201/2024 clad. (90)	Unchanged
1004	T6III 9 163-MPS-C-8 Strip.	LAC 23-4688, elastomer	Unchanged
1005	T6III 10 164-AL12-11 Strip.	VS832/6061-T6/6061 Al (0)	Unchanged
1006	T6III 10 165-AL12-1 Strip.	VS832/6061-T6/6061 Al (0)	Unchanged
1007	T6III 10 166-AL12-1 Strip.	VS832/6061-T6/6061 Al (0)	Unchanged
1008	T6III 10 167-GL3-3 Strip.	graphite/glass: Celion 6000/borosilicate glass	Unchanged
1009	T6III 9 168-S0 D Strip.	Sokdal D coating (A. Electrotag 502/ B. Electrotag 501)	Unchanged
1011	T6III 10 170-PS3-12 Strip.	W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	Unchanged
1012	T6III 10 171-PS4-10 Strip.	W-722 (Graphite/Glass fabric)/P1700/ZnO coating	Unchanged
1013	T6III 10 172-MGS-14 Strip.	VS0054/EZ33/AZ31B clad (0)	Discolored, cracked
1014	T6III 10 173-PS6-8 Riveted lap.	W-722 (Graphite/Glass fabric)/P1700, ZnO coating	Contaminated (stain), cracked
1015	T6III 10 174-PS4-11 Strip.	W-722 (Graphite/Glass fabric)/P1700/ZnO coating	Distorted, dulled
1016	T6III 10 175-PS4-12 Strip.	W-722 (Graphite/Glass fabric)/P1700/ZnO coating	Contaminated (stain), cracked
1017	T6III 10 176-PS1-8 Strip.	T300/P1700 (0/90)	Contaminated (stain)
1018	T6III 10 177-EP12-7 Strip.	P75S/934, (0/45/90/135)S2	Unchanged
1019	T6III 10 178-EP12-8 Strip.	P75S/934, (0/45/90/135)S2	Unchanged
1020	T6III 10 179-EP4-11 Strip.	AS/3501-6 (0)	Contaminated (stain)
1021	T6III 10 180-EP4-12 Strip.	AS/3501-6 (0)	Unchanged
1022	T6III 10 181-EP4-13 Strip.	AS/3501-6 (0)	Unchanged
1023	T6III 10 182-P11-10 Strip.	Celion 6000/PMR-15 (0)	Contaminated (stain)
1024	T6III 10 183-AL14-1 Strip.	VS832/6061-T6/6061 Al clad. (0)	Contaminated (stain)
1025	T6III 10 184-AL14-3 Strip.	VS832/6061-T6/6061 Al clad. (0)	Unchanged
1026	T6III 10 185-AL14-1 Strip.	VS832/6061-T6/6061 Al clad. (0)	Unchanged
1027	T6III 10 186-AL15-5 Strip.	VS832/6061-T6/6061 Al clad. (90)	Unchanged
1028	T6III 10 187-AL15-1 Strip.	VS832/6061-T6/6061 Al clad. (90)	Unchanged

QMS	Sample ID	Description	Post-Flight Condition
1029	T6III-10-188-EP22-4	Strip. GY70/CE-339 (0/45/90/135)S2	Contaminated (particle)
1030	T6III-10-189-MG3	Strip. VS0054/EZ33A/AZ31B (0)	Contaminated (stain)
1031	T6III-10-190-MG3	Strip. VS0054/EZ33A/AZ31B (0)	Unchanged
1032	T6III-10-191-MG3	Strip. VS0054/EZ33A/AZ31B (0)	Unchanged
1033	T6III-10-192-MG9-L4	Strip. P100/AZ91C/AZ61A (0)	Dulled
1034	T6III-10-193-MG9-L8	Strip. P100/AZ91C/AZ61A (0)	Dulled
1035	T6III-10-194-EP13-7	Strip. GY70/934 (0/45/90/135)S2	Contaminated (stain)
1036	T6III-10-195-MG5-4	Strip. VS0054/EZ33A/AZ31B clad (0)	Dulled
1037	T6III-10-196-MG5-21	Strip. VS0054/EZ33A/AZ31B clad (0)	Contaminated (stain)
1038	T6III-10-197-MG5-10	Strip. VS0054/EZ33A/AZ31B clad (0)	Unchanged
1039	T6III-10-198-EP13-8	Strip. GY70/934 (0/45/90/135)S2	Contaminated (stain)
1040	T6III-10-199-EP18-1	Strip. T300/2 mil-3M 113 viscoelastic tape/5208	Contaminated (stain)
1041	T6III-10-200-EP19-1	Strip. T300/2 mil-3M 113 viscoelastic tape/5208	Contaminated (stain)
1042	T6III-10-201-EP20-1	Strip. T300/2 mil-3M 113 viscoelastic tape/5208	Contaminated (stain)
1043	T6III-10-202-EP10-4	Strip. E glass 120 Fabric/X904B (0)	Unchanged
1044	T6III-10-203-EP5-4	Strip. GY70/X904B (0)	Unchanged
1045	T6III-10-204-EP6-4	Strip. GY70/X904B (0/90/90/0)	Unchanged
1046	T6III-10-205-EP7-4	Strip. GY70/X904B (0)	Unchanged
1047	T6III-10-206-P11-11	Strip. Celion 6000/PMR-15 (0)	Unchanged
1048	T6III-10-207-P11-12	Strip. Celion 6000/PMR-15 (0)	Unchanged
1049	T6III-10-208-PS1-7	Strip. T300/P1700 (0/90)	Unchanged
1050	T6III-10-209-AL30-3	Strip. SiC whiskers/2124 Al	Unchanged
1054	T6III-9-213-W2	Coated wire. MIL-W-22759/32	Unchanged
1055	T6III-10-214-MG6-4	Strip. VS0054/EZ33A/AZ31B clad. (90)	Contaminated (stain), contaminated (particle)
1056	T6III-10-215-MG9-T7	Strip. P100/AZ91C/AZ61A (90)	Unchanged
1057	T6III-10-216-MG9-T5	Strip. P100/AZ91C/AZ61A (90)	Dulled
1058	T6III-9-217-S0-K	Strip. Sodal K coating. (A. DC93-500/ B. R-2501)	Dulled
1060	T6III-10-219-AL31-4	Strip. SiC whiskers/6061Al	Contaminated (particle)
1061	T6III-9-220-S0-R	Strip. Sodal R coating. (A. DC93-500/ B. R-2501)	Contaminated (stain)
1063	T6III-10-222-EP2-6	Strip. GY70/X-30/Sn-In eut (0/45/90/135)S4	Contaminated (particle)
1064	T6III-10-223-EP22-6	Strip. GY70/CE-339 (0/45/90/135)S2	Contaminated (stain)
1065	T6III-10-224-EP22-11	Strip. GY70/CE-339 (0/45/90/135)S2	Unchanged
1066	T6III-10-225-MG10-3	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled
1067	T6III-10-226-MG10-8	Strip. P100/AZ91C/AZ61A (+10°/-10°)S	Dulled
1068	T6III-10-227-AL33-5	Strip. P100/201/2024 Al (+20°/-20°)S	Unchanged
1069	T6III-10-228-AL33-7	Strip. P100/201/2024 Al (+20°/-20°)S	Unchanged
1070	T6III-10-229-PS14-2	Strip. T300/polyether sulfone/TiO2 coating	Contaminated (stain)
1071	T6III-10-230-PS12-2	Strip. T300/polyether sulfone/with lealing Al coating	Unchanged
1072	T6III-10-231-EP21-7	Strip. P75S/CE-339. (0/45/90/135)S4	Unchanged
1073	T6III-10-232-EP21-8	Strip. P75S/CE-339. (0/45/90/135)S4	Unchanged

DBS	Sample ID	Description	Post-Flight Condition
1074	T6III 10 233-P15 10	Strip. Celcon 6000/PMR-15. (0)	Unchanged
1075	T6III 10 234 P15-11	Strip. T300/V378A (0/45/90/135)S2	Unchanged
1076	T6III 10 235-P15-12	Strip. T300/V378A. (0/45/90/135)S2	Unchanged
1077	T6III 10 236-PS1 12	Strip. T300/P1700. (0/90)	Unchanged
1078	T6III 10 237 P12 6	Strip. graphite-LARC 160	Unchanged
1079	T6III 10 238 P12 9	Strip. graphite-LARC 160	Unchanged
1080	T6III 10 239 P12 10	Strip. graphite-LARC 160	Unchanged
1081	T6III 10 240 AL32 3	Strip. SC fiber. SC S2/A	Unchanged
1085	T6III 10 244 AL32 5	Strip. SC fiber. SC S2/A	Unchanged
1086	T6VI 5-1 A20	White paint. TiO2/RTV 602. ML101. Air Force Materials Laboratory	Discolored (-), contaminated (particle)
1087	T6VI 5 2 A18	White paint. alpha A2O3/RTV 602. ML101. Air Force Materials Laboratory	Discolored (-)
1088	T6VI 5 3 A16	White paint. NS 43G NASA Goddard Space Flight Center	Discolored (-), crazed, contaminated (particle)
1089	T6VI 5 4 B5	Ag mirror/Al	Corroded (-)
1090	T6VI 5 5 A14	White paint. Si3GLO. IITRI	Discolored (-), contaminated (particle)
1091	T6VI 5 6 A11	Kapton:Al. 5 mil. Sheldahl	Unchanged
1092	T6VI 5 7 A7	Teflon FEP/Ag/inconel. 2 mil. Sheldahl	Hazed
1093	T6VI 5 8 A1	Quartz fabric 581 (Asiroquartz)/Teflon FEP/Al General Electric	Discolored (-)
1094	T6VI 5 9 A21	White paint. DC92-007 TiO2/RTV 3140. Rockwell Int	Discolored (-), contaminated (particle) (+), wrink
1095	T6VI 5 10 A19	White paint. PV100 TiO2/silicone resm. ML101. Air Force Materials Laboratory	Discolored (-), contaminated (particle)
1096	T6VI 5 11 A17	White paint. Eu2O3/RTV 602. ML101. Air Force Materials Laboratory	Discolored (-)
1097	T6VI 5 12 A15	White paint. YB-71. IITRI	Crystallized
1098	T6VI 5 13 A13	White paint. Z93. IITRI	Unchanged
1099	T6VI 5 14-A8	Teflon FEP/Ag/inconel. 5 mil. Sheldahl	Roughened
1100	T6VI 5 15 A6	7um quartz fabric chemical and heat cleaned (+450°C). adhesive bond. General Electric	Discolored
1101	T6VI 5 16 B4	Al mirror/glass	Microfractured
1102	T6VI 5 17 B2	Optical Solar Reflector. OCLI Si-100 with conductive coating	Corroded
1103	T6VI 5 18 B1	Optical Solar Reflector. OCLI Si-100	Corroded
1104	T6VI 5 19 B2	Au mirror/Al	Contaminated (stain)
1105	T6VI 13-20-A	Ag/Teflon FEP-covered aperture plate on cassette containing 25 optical samples	Cover hazed, discolored (-)
1105 01	T6VI 13-20-01A	Flexible reflector Denton silver/ Al	Unchanged
1105 02	T6VI 13-20-02A	Reflective MLJ retainer A2O3(0.3255um) / Ag(0.2um) /A2O3 (0.0245um) / VESPEL	Unchanged
1105 03	T6VI 13-20-03A	Flat solar reflector Leaning Al paint (polysilicate binder)/ Al	Unchanged
1105 04	T6VI 13-20-04A	Flat solar reflector Barrier anodize/ Al	Hazed (-)
1105 05	T6VI 13-20-05A	Flexible reflector A2O3(0.3255 um)/ Ag(0.2um)/A2O3(0.0323 um)/ 2 mil Kapton	Microfractured
1105 06	T6VI 13-20-06A	Flexible reflector A2O3 (0.3255 um)/Ag (0.2u m)/ A2O3 (0.0323 um)/ Al foil	Unchanged
1105 07	T6VI 13-20-07A	Ceramic MLJ retainer MACOR	Unchanged
1105 08	T6VI 13-20-08A	Radiator coating Boron nitride. grade HP	Unchanged
1105 09	T6VI 13-20-09A	Radiator coating BaF2/Ag/Al	Microfractured, chipped
1105 1	T6VI 13-20-10A	Flexible mirror Dielectric Stack. A2O3/Ag/Kapton	Microfractured
1105 11	T6VI 13-20-11A	Solar absorber Black chrome on nickel foil	Unchanged

DB#	Sample ID	Description	Post-Flight Condition
1105 12	T6V1 13 20 12A	Wide band reflective stack	Cratered
1105 13	T6V1 13 20 13A	Thermal switch (non-linear) Non-Linear material/Ge	Unchanged
1105 14	T6V1 13 20 14A	Absorptive stack Dielectric stack/SiO2/Al2O3/Ni-Au/ Be	Unchanged
1105 15	T6V1 13 20 15A	Non linear material VO2/BaF2 Honeywell	Hazed
1105 16	T6V1 13 20 16A	Sapphire second surface mirror	Contaminated (particle)
1105 17	T6V1 13 20 17A	Sapphire cover slip	Microfractured ()
1105 18	T6V1 13 20 18A	Reflective/transmissive filter ZnS/SrF2/ITO/SiO2	Hazed
1105 19	T6V1 13 20 19A	Scanning horizon sensor Dielectric stack/ Ge	Contaminated (particle)
1105 20	T6V1 13 20 20A	Staring horizon sensor Dielectric Stack/ZnSe/Dielectric stack	Contaminated (particle)
1105 21	T6V1 13 20 21A	Graphite polyimide/Fiberfrax paper/Astroquartz 550/Astroquartz 581	Unchanged
1105 22	T6V1 13 20 22A	Graphite polyimide/capacitive grid material/ceramic standoff/Astroquartz 581	Discolored ()
1105 23	T6V1 13 20 23A	ECCOFOAMOG	Unchanged
1105 24	T6V1 13 20 24A	Flexible dielectric stack dielectric stack/Kapton	Contaminated (particle)
1105 25	T6V1 13 20 25A	Graphite polyimide/Astroquartz 550/BN fabric	Discolored
1106 01	T6V1 6 21 11	Ag/Teflon FEP covered cassette holding 11 sun pumped laser coatings	Hazed, discolored ()
1106 02	T6V1 6 21 11 1	Laser rod anti reflection coating ZnO2/SiO2 on YAG	Unchanged
1106 03	T6V1 6 21 11 2	Laser mirror high reflectance coating TiO2/SiO2 on silica	Contaminated (particle)
1106 04	T6V1 6 21 11 3	Lens anti reflection coating Vitralox/MgF2 on Silica	Hazed
1106 05	T6V1 6 21 11 4	Telescope/gimbal high reflectance coating ZnS/ThF4/Ag on silica	Corroded, contaminated (particle)
1106 06	T6V1 6 21 11 5	Telescope/gimbal high reflectance coating SiO2/Al2O3/Ag on silica	Unchanged
1106 07	T6V1 6 21 11 6	Telescope/gimbal high reflectance coating SiO2/Ag on Cervit	Unchanged
1106 08	T6V1 6 21 11 7	Solar telescope high reflectance coating Electroplated Au on Ni/Al	Unchanged
1106 09	T6V1 6 21 11 8	Solar telescope high reflectance coating Au/Spinel on Ni/Al	Corroded ()
1106 10	T6V1 6 21 11 9	Wide band reflector coating TiO2/SiO2 on silica	Flaked, contaminated (particle)
1106 11	T6V1 6 21 11 10	Wide band anti-reflection coating ZnO2/SiO2 on silica	Hazed
1106 12	T6V1 6 21 11 11	Wide band anti-reflection coating Al2O3/ZrO2/MgF2	Microfractured
1107	T6V1 4 22 X2	Conventional silicon cells, 5 cell string	Microfractured, debonded
1108	T6V1 12 23 6	Thermoluminescent dosimeter, LJF	Buckled, contaminated (stain)
1109	T6V1 11 24 05	ZnSe infrared plate	Missing, holder eroded
1110	T6V1 11 25 5	Corning 7940 second surface aluminum mirror	Hazed
1111	T6V1 11 26 S04	Aluminized fused silica mirror	Contaminated (particle)
1112	T6V1 11 27 BG04	Low scatter black glass	Unchanged
1113	T6V1 11 28 C01 6	Gold coated copper mirror	Unchanged
1114	T6V1 11 29 N04	Low scatter nickel mirror	Contaminated (particle)
1115	T6V1 7 30 36	Mirror, Ag + (ThF4/ZnS)*3 coating on polished molybdenum substrate	Hazed, cratered
1116	T6V1 7 31 4	Mirror, Ag + (Al2O3/Si)*2 coating on polished molybdenum substrate	Hazed, contaminated (particle)
1117	T6V1 1 32 B11	WO3 (UV treated)/IR dye/Al substrate	Discolored
1118	T6V1 1 33 C11	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1119	T6V1 1 34 A11	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1120	T6V1 1 35 B22	WO3 (UV treated)/IR dye/Al substrate	Discolored

DB#	Sample ID	Description	Post-Flight Condition
1121	T6V1 1 36 C22	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1122	T6V1 1 37 A22	WO3 (UV treated)/polyurethane/Al substrate	Discolored
1123	T6V1 2 38 005	Fused SiO2	Contaminated (particle)
1124	T6V1 2 39 021	Fused SiO2	Contaminated (particle)
1125	T6V1 2 40 029	Fused SiO2	Contaminated (particle)
1126	T6V1 2 41 008	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
1127	T6V1 2 42 013	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
1128	T6V1 2 43 023	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed, contaminated (particle)
1129	T6V1 2 44 N21	Polished molybdenum	Hazed
1130	T6V1 2 45 N17	Polished molybdenum	Hazed
1131	T6V1 2 46 N4	Polished molybdenum	Hazed
1132	T6V1 2 47 N11	ThF4/Ag/Cr coating, lambda (1 06)/2 thick/ molybdenum substrate	Unchanged
1133	T6V1 2 48 N12	ThF4/Ag/Cr coating, lambda (1 06)/2 thick/ molybdenum substrate	Unchanged
1134	T6V1 2 49 N2	ThF4/Ag/Cr coating, lambda (1 06)/2 thick/ molybdenum substrate	Hazed (-)
1135	T6V1 2 50 8691	Diamond turned copper, A surface	Corroded
1136	T6V1 2 51 8689	Diamond turned copper, B surface	Hazed
1137	T6V1 2 52 8684	Diamond turned copper, C surface	Hazed
1138	T6V1 2 53 1	Diamond turned nickel coated copper, A surface	Hazed
1139	T6V1 2 54 7	Diamond turned nickel coated copper, A surface	Hazed (-)
1140	T6V1 2 55 9	Diamond turned nickel coated copper, B surface	Hazed
1141	T6V1 2 56 008	Fused SiO2	Unchanged
1142	T6V1 2 57 011	MgF2 coating, lambda (1 06)/2 thick/fused silica substrate	Crazed
1143	T6V1 2 58 N9	Polished molybdenum	Contaminated (particle)
1144	T6V1 2 59 N13	ThF4/Ag/Cr coating, lambda (1 06)/2 thick/ molybdenum substrate	Contaminated (particle)
1145	T6V1 2 60 8685	Diamond turned copper	Unchanged
1146	T6V1 2 61 3	Diamond turned nickel coated copper	Contaminated (particle)
1147	T6V1 1 62 A63	WO3 (UV treated)/polyurethane/Al substrate	Unchanged
1148	T6V1 1 63 B63	WO3 (UV treated)/IR dye/Al substrate	Unchanged
1149	T6V1 1 64 C63	WO3 (UV treated)/polyurethane/Al substrate	Unchanged
2000	D4 SCU Cover	Si3N4 painted Al box covering signal conditioning unit	Discolored, contaminated (stain), cratered
2001	D4-Sunshield	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	Discolored
2002	D8-SCU Cover	Si3N4 painted Al box covering signal conditioning unit	Discolored, cratered
2003	D8-Sunshield	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	Eroded, cratered
2004	L31 20 1	Telton FEP/AgIncr-adhesive sheet	Eroded, discolored, cratered

APPENDIX B

M0003 DATABASE CONTENTS

(Sorted by Application)

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120	Antennae	Gold-plated woven Dacron mesh	L3II-9-33-AM1A
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711	Contamination monitor, optics	Aluminized fused silica mirror	T3II-11-59-S03

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624	Contamination monitor, optics	Low scatter black glass	T3II-11-48-BG06
514	Contamination monitor, optics	ZnSe mirror, plate	L6VI-11-15-2
509	Contamination monitor, optics	Gold coated nickel mirror	L6VI-11-10-C82-4
508	Contamination monitor, optics	Low scatter nickel mirror	L6VI-11-9-N02
505	Contamination monitor, optics	Aluminized fused silica mirror	L6VI-11-6-S02
147	Contamination monitor, optics	ZnSe mirror, plate	L3III-11-60-1
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1148	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI-1-63-B63
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1127	Electro optic signature	WO3 (UV treated)/polyurethane/Al substrate	T6VI-1-37-A22
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696-06	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-14
696-05	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-13
696-04	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-12
696-03	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-11
696-02	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-10
696-01	Electronics	GaAs FETs, bulk GaAs	T3III-19-44-D-09
695-09	Electronics	GaAs FETs, bulk GaAs	T3III-19-43-C-09
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695 07 Electronics	MOS devices	T3III-19-43-C-07
695 06 Electronics	MOS device	T3III-19-43-C-06
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131 1 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-3639B
131 09 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-3639A
131 07 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-07
131 06 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-06
131 05 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-05
131 02 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-02
131 01 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-01
130 1 Electronics	MOS Devices	L3III-19-43-A-10
130 09 Electronics	MOS Device	L3III-19-43-A-09
130 08 Electronics	MOS Device	L3III-19-43-A-08
130 07 Electronics	MOS Devices	L3III-19-43-A-07
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130 02 Electronics	MOS Device	L3III-19-43-A-02
130 01 Electronics	MOS Device	L3III-19-43-A-01
131 08 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-08
131 04 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-04
131 03 Electronics	GaAs FETs, bulk GaAs	L3III-19-44-B-03
696 Electronics hardware	Anodized aluminum mounting plate with GaAs FETs, bulk GaAs	T3III-19-43-C-00
695 Electronics hardware	Anodized aluminum mounting plate with MOS devices	T3I-9-8 CW4
576 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	T3I-9-7-CW3
575 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	T3I 9 6 CW2
574 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	T3I-9-5-CW1
573 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	L3III-19-44-B-00
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130 Electronics hardware	Anodized aluminum mounting plate with MOS devices	L3I-9-8-CW4
8 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	L3I-9-7-CW3
7 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	L3I-9-6-CW2
6 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	L3I-9-5-CW1
5 Electronics hardware	Bendis JT06R plug & JT02R receptacle mounted on Al with Ti and Ag plated stainless steel hardware	T6III-9-213-W2
1054 Electronics hardware, insulation	Coated wire, MIL-W-22759/32	T6III-9-116-W1
942 Electronics hardware, insulation	Coated wire, MIL-W-22759/32	T3IV-8-63-8
789 Hardware, adhesive bond solar power	Thin film solar cell, standard Si	

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786	Hardware, adhesive bond, solar power	1/8" solar cell, CuInSe ₂ /CdS	T31V-8-62-183-4
1105 01	Insulation, thermal control	Ceramic MJ1 retainer MACOR	T6VI-13-20-07A
1105 02	Insulation, thermal control	Reflective MJ1 retainer Al ₂ O ₃ (0.325µm) / Ag (0.2µm) / Al ₂ O ₃ (0.0245µm) / VESPEL	T6VI-13-20-02A
1146	Laser optics, optics	Diamond-turned nickel coated copper	T6VI-2-61-3
1145	Laser optics, optics	Diamond-turned copper	T6VI-2-60-8685
1144	Laser optics, optics	InFe/Ag/Cr coating lambda (1 1/2) thick/ molybdenum substrate	T6VI-2-59-N13
1143	Laser optics, optics	Polished molybdenum	T6VI-2-58-N9
1142	Laser optics, optics	MgF ₂ coating, lambda (1 06) thick/fused silica substrate	T6VI-2-57-011
1141	Laser optics, optics	Fused SiO ₂	T6VI-2-56-008
1140	Laser optics, optics	Diamond-turned nickel coated copper, B surface	T6VI-2-55-9
1139	Laser optics, optics	Diamond-turned nickel coated copper, A surface	T6VI-2-54-7
1138	Laser optics, optics	Diamond-turned nickel coated copper, A surface	T6VI-2-53-1
1137	Laser optics, optics	Diamond-turned copper, C surface	T6VI-2-52-8684
1136	Laser optics, optics	Diamond-turned copper, B surface	T6VI-2-51-8689
1135	Laser optics, optics	Diamond-turned copper, A surface	T6VI-2-50-8691
1134	Laser optics, optics	InFe/Ag/Cr coating lambda (1 06) thick/ molybdenum substrate	T6VI-2-49-N2
1133	Laser optics, optics	InFe/Ag/Cr coating lambda (1 06) thick/ molybdenum substrate	T6VI-2-48-N12
1132	Laser optics, optics	InFe/Ag/Cr coating lambda (1 06) thick/ molybdenum substrate	T6VI-2-47-N1
1131	Laser optics, optics	Polished molybdenum	T6VI-2-46-N4
1130	Laser optics, optics	Polished molybdenum	T6VI-2-45-N17
1129	Laser optics, optics	Polished molybdenum	T6VI-2-44-N21
1128	Laser optics, optics	MgF ₂ coating, lambda (1 06) thick/fused silica substrate	T6VI-2-43-023
1127	Laser optics, optics	MgF ₂ coating, lambda (1 06) thick/fused silica substrate	T6VI-2-42-013
1126	Laser optics, optics	MgF ₂ coating, lambda (1 06) thick/fused silica substrate	T6VI-2-41-009
1125	Laser optics, optics	Fused SiO ₂	T6VI-2-40-029
1124	Laser optics, optics	Fused SiO ₂	T6VI-2-39-021
1123	Laser optics, optics	Fused SiO ₂	T6VI-2-38-005
1106 11	Laser optics, optics	Wide band anti reflection coating Al ₂ O ₃ /ZrO ₂ /MgF ₂	T6VI-6-21-11-11
1106 1	Laser optics, optics	Wide band reflector coating ZrO ₂ /SiO ₂ on silica	T6VI-6-21-11-10
1106 09	Laser optics, optics	Wide band reflector coating TiO ₂ /SiO ₂ on silica	T6VI-6-21-11-9
1106 08	Laser optics, optics	Solar telescope high reflectance coating Au/Spmel on Ni/Al	T6VI-6-21-11-8
1106 07	Laser optics, optics	Telescope/gimbal high reflectance coating Electroplated Au on Ni/Al	T6VI-6-21-11-7
1106 06	Laser optics, optics	Telescope/gimbal high reflectance coating SiO ₂ /Ag on Cervit	T6VI-6-21-11-6
1106 05	Laser optics, optics	Telescope/gimbal high reflectance coating SiO ₂ /Al ₂ O ₃ /Ag on silica	T6VI-6-21-11-5
1106 04	Laser optics, optics	Telescope/gimbal high reflectance coating ZnS/ThF ₄ /Ag on silica	T6VI-6-21-11-4
1106 03	Laser optics, optics	Lens anti-reflection coating Yttrium/MgF ₂ on Silica	T6VI-6-21-11-3
1106 02	Laser optics, optics	Laser mirror high reflectance coating TiO ₂ /SiO ₂ on silica	T6VI-6-21-11-2
1106 01	Laser optics, optics	Laser rod anti-reflection coating ZrO ₂ /SiO ₂ on YAG	T6VI-6-21-11-1
560	Laser optics, optics	Diamond-turned nickel coated copper, B surface	L6VI-2-61-6
559	Laser optics, optics	Diamond-turned nickel coated copper, A surface	L6VI-2-60-4
558	Laser optics, optics	Diamond-turned nickel coated copper, A surface	L6VI-2-59-2
557	Laser optics, optics	Diamond-turned copper, A surface	L6VI-2-58-8686
556	Laser optics, optics	Diamond-turned copper, B surface	L6VI-2-57-8683

Obs Application	Description	Sample ID
555 Laser optics optics	Diamond turned copper, A surface	L6V1-2-56-8692
554 Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)2 thick/ molybdenum substrate	L6V1-2-55-N14
553 Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)2 thick/ molybdenum substrate	L6V1-2-54-N6
552 Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)2 thick/ molybdenum substrate	L6V1-2-53-N3
551 Laser optics optics	Polished molybdenum	L6V1-2-52-N8
550 Laser optics optics	Polished molybdenum	L6V1-2-51-N23
549 Laser optics optics	Polished molybdenum	L6V1-2-50-N19
548 Laser optics optics	MgF2 coating, lambda (1 06)2 thick/fused silica substrate	L6V1-2-49-024
547 Laser optics optics	MgF2 coating, lambda (1 06)2 thick/fused silica substrate	L6V1-2-48-022
546 Laser optics optics	MgF2 coating, lambda (1 06)2 thick/fused silica substrate	L6V1-2-47-014
545 Laser optics optics	Fused SiO2	L6V1-2-46-019
544 Laser optics optics	Fused SiO2	L6V1-2-45-018
543 Laser optics optics	Fused SiO2	L6V1-2-44-002
542 Laser optics optics	Diamond-turned copper	L311-2-56-8688
64 Laser optics optics	ThF4/Ag/Cr coating lambda (1 06)2 thick/ molybdenum substrate	L311-2-55-N24B
63 Laser optics optics	Polished molybdenum	L311-2-54-N18A
62 Laser optics optics	MgF2 coating, lambda (1 06)2 thick/fused silica substrate	L311-2-53-010
61 Laser optics optics	Fused SiO2	L311-2-52-006
60 Laser optics optics	Fused SiO2	L311-2-51-10
55 Laser optics optics	Diamond turned nickel coated copper	L6V1-7-31-4
1116 Optics	Mirror, Ag + (Al2O3/Si)2 coating on polished molybdenum substrate	L6V1-7-30-36
1115 Optics	Mirror, Ag + (ThF4/ZnS)3 coating on polished molybdenum substrate	L6V1-13-20-20A
1105 2 Optics	Staring horizon sensor Dielectric Stack/ZnSe/Dielectric stack	L6V1-13-20-19A
1105 19 Optics	Scanning horizon sensor Dielectric stack/ Ge	L6V1-13-20-18A
1105 18 Optics	Reliectivetransmissive filter ZnS/SrF2/ITO/SiO2	L6V1-13-20-17A
1105 17 Optics	Sapphire cover slip	L6V1-13-20-16A
1105 16 Optics	Sapphire second surface mirror	L6V1-13-20-14A
1105 14 Optics	Absorptive stack Dielectric stack/SiO2/Al2O3/Ni, Au/ Be	L6V1-13-20-12A
1105 12 Optics	Wide band reflective stack	T311-7-64-11
640 Optics	ZnS coating on SiO2 substrate	T311-7-63-12
639 Optics	As2Se3 coating on SiO2 substrate	T311-7-62-8
638 Optics	PbF2 coating on SiO2 substrate	T311-7-61-7
637 Optics	ThF4 coating on SiO2 substrate	T311-7-60-4
636 Optics	Si coating on SiO2 substrate	T311-7-59-2
635 Optics	Al2O3 coating on SiO2 substrate	T311-7-56-23
637 Optics	Mirror, Al2O3 coating, lambda/2 thick @ 2.7 um, CaF2 substrate	L6V1-7-68-15
567 Optics	Mirror, Al + (Al2O3/ZnS)9 multi-layer coating on polished molybdenum substrate	L6V1-7-67-239
566 Optics	Mirror, Si/SiOx coating on polished molybdenum substrate	L6V1-7-1-46-11
500 Optics	Mirror, Ag + (Al2O3/Si)3 multi-layer coating on polished molybdenum substrate	L311-7-65-10
73 Optics	ZnS coating on SiO2 substrate	L311-7-64-9
72 Optics	SiOx coating on SiO2 substrate	L311-7-63-6
71 Optics	ThF4 coating on SiO2 substrate	L311-7-62-5
70 Optics	NaF coating on SiO2 substrate	L311-7-61-3
69 Optics	Si coating on SiO2 substrate	

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68	Optics	AlPO3 coating on SiO2 substrate	L3II-7-60-1
1114	Optics, contamination monitor	Low scatter nickel mirror	T6VI-11-29-N04
1113	Optics, contamination monitor	Gold coated copper mirror	T6VI-11-28-C81-8
1112	Optics, contamination monitor	Low scatter black glass	T6VI-11-27-BG04
717	Optics, contamination monitor	ZnSe infrared plate	T3III-11-60-04
626	Optics, contamination monitor	Low scatter nickel mirror	T3II-11-50-N03
504	Optics, contamination monitor	Low scatter black glass	L6VI-11-5-BG02
58	Optics, contamination monitor	Low scatter nickel mirror	L3II-11-50-N01
56	Optics, contamination monitor	Low scatter black glass	L3II-11-48-BG01
149	Optics, contamination monitor, thermal control	Corning 7940 second surface aluminum mirror	L3III-11-62-X
1105, 15	Optics, electro optics	Non linear material VO2Baf2, Honeywell	T6VI 13 20 15A
742	Optics, structures	Mirror GY70201-2024 Clad (6 ply)	L6III 10 6 Al8 7
741	Optics, structures	Mirror, graphite/glass Cation 6000borosilicate glass	L6III-10-5-GL2-1
1110	Optics, thermal control, contamination monitor	Corning 7940 second surface aluminum mirror	T6VI-11-25-5
714	Optics, thermal control, contamination monitor	Corning 7940 second surface aluminum mirror	T3III-11-62-3
527	Radar, camouflage	Resonant window	T3I-1-4-B
521	Radar, camouflage	Capacitive grid	T3I-1-3-A
520	Radar, camouflage	Circuit analog sheet	T3I-1-2-D
569	Radar, camouflage	Resonant reflector	T3I-1-1-C
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3	Radar, camouflage	Capacitive grid	L3I-1-3-A
2	Radar, camouflage	Circuit analog sheet	L3I-1-2-D
1	Radar, camouflage	Resonant reflector	L3I-1-1-C
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796	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T3IV-17-70-1
713	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T3III-12-61-3
623	Radiation dosimetry	Thermoluminescent dosimeter, LiF	T3II-12-47-4
526	Radiation dosimetry	Thermoluminescent dosimeter, LiF	L6VI-12-27-3
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749	Solar power	Conventional silicon cells, 5 cell string	T3IV-4-23-X4
748	Solar power	High performance silicon cells, 5 cell string	T3IV-4-22-D
747	Solar power	Vertical junction silicon cells, 5 cell string	T3IV-4-21-VJ2
746	Solar power	HESP II GaAs cells, 5 cell string	T3IV-4-20-GA2
745	Solar power	HESP II silicon cells, 5 cell string	T3IV-4-19-C
520	Solar power	Conventional silicon cells, 5 cell string	L6VI-4-21-X1
185	Solar power	Conventional silicon cells, 5 cell string	L3IV-4-23-X3
184	Solar power	High performance silicon cells, 5 cell string	L3IV-4-22-B
183	Solar power	Vertical junction silicon cells, 5 cell string	L3IV-4-21-VJ1
182	Solar power	HESP II Ga As cells, 5 cell string	L3IV-4-20-GA1
181	Solar power	HESP II silicon cells, 5 cell string	L3IV-4-19-A

Obs	Application	Description	Sample ID
812	Solar power, optics	Cera, Delrin retainer, OCLI	T3IV.4.86-63
811	Solar power, optics	7940 fused silica, Delrin retainer, OCLI	T3IV.4.85-59
810	Solar power, optics	7940 fused silica, Delrin retainer, OCLI	T3IV.4.84-55
809	Solar power, optics	7070 fused silica, Delrin retainer, OCLI	T3IV.4.83-51
807	Solar power, optics	Mark IV coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.81-43
806	Solar power, optics	Erosion coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.80-39
805	Solar power, optics	Erosion coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.79-35
803	Solar power, optics	Mark III E coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.77-27
802	Solar power, optics	Mark III D coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.76-23
801	Solar power, optics	HEA coating 3 on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.75-19
800	Solar power, optics	Reflective 350nm coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.74-15
799	Solar power, optics	Reflective 350nm coating on Cera, Delrin retainer, OCLI	T3IV.4.73-11
798	Solar power, optics	Reflective 350nm coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.72-7
797	Solar power, optics	Standard 350nm coating on 7940 fused silica, Delrin retainer, OCLI	T3IV.4.71-3
747	Solar power, optics	Cera, Delrin retainer, OCLI	T3IV.4.16-62
741	Solar power, optics	7940 fused silica, Delrin retainer, OCLI	T3IV.4.15-58
740	Solar power, optics	7940 fused silica, Delrin retainer, OCLI	T3IV.4.14-54
739	Solar power, optics	7070 fused silica, Delrin retainer, OCLI	T3IV.4.13-50
737	Solar power, optics	Mark IV coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.11-42
736	Solar power, optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.10-38
735	Solar power, optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.9-34
733	Solar power, optics	Mark III E coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.7-26
732	Solar power, optics	Mark III D coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.6-22
731	Solar power, optics	HEA 3 1 coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.5-18
730	Solar power, optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.4-14
729	Solar power, optics	Reflective 350 nm coating/CERIA, Delrin retainer, OCLI	T3IV.4.3-10
728	Solar power, optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.2-6
727	Solar power, optics	Standard 350 nm coating/7940 fused silica, Delrin retainer, OCLI	T3IV.4.1-2
633	Solar power, optics	Solar cell coating	T3II.4.57-3
178	Solar power, optics	Cera, Delrin retainer, OCLI	L3IV.4.16-61
177	Solar power, optics	7940 fused silica, Delrin retainer, OCLI	L3IV.4.15-57
176	Solar power, optics	7940 fused silica, Delrin retainer, OCLI	L3IV.4.14-52
175	Solar power, optics	7070 fused silica, Delrin retainer, OCLI	L3IV.4.13-49
173	Solar power, optics	Mark IV coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.11-41
172	Solar power, optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.10-37
171	Solar power, optics	Erosion coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.9-33
169	Solar power, optics	Mark III E coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.7-25
168	Solar power, optics	Mark III D coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.6-24
167	Solar power, optics	HEA 3 1 coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.5-17
166	Solar power, optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.4-13
165	Solar power, optics	Reflective 350 nm coating/CERIA, Delrin retainer, OCLI	L3IV.4.3-9
164	Solar power, optics	Reflective 350 nm coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.2-5
163	Solar power, optics	Standard 350 nm coating/7940 fused silica, Delrin retainer, OCLI	L3IV.4.1-1

Obs	Application	Description	Sample ID
67	Solar power optics	Solar cell coating	L3II-4-59-SC2
66	Solar power optics	Solar cell coating	L3II-4-58-SC1
808	Solar power optics	Contamination coating on 7940 fused silica. Delrin retainer. OCL1	T3IV-4-82-47
804	Solar power optics	Contamination coating on 7940 fused silica. Delrin retainer. OCL1	T3IV-4-78-31
734	Solar power optics	Contamination coating/7940 fused silica. Delrin retainer. OCL1	T3IV-4-12-46
734	Solar power optics	Contamination coating/7940 fused silica. Delrin retainer. OCL1	T3IV-4-8-30
174	Solar power optics	Contamination coating/7940 fused silica. Delrin retainer. OCL1	L3IV-4-12-45
170	Solar power optics	Contamination coating/7940 fused silica. Delrin retainer. OCL1	L3IV-4-8-29
1085	Structures	Sup. SiC fiber SC S2/A1	T6III-10-244-AL32-5
1081	Structures	Sup. SiC fiber SC S2/A1	T6III-10-240-AL32-3
1080	Structures	Sup. graphite/LARC 160	T6III-10-239-PI2-10
1079	Structures	Sup. graphite/LARC 160	T6III-10-238-PI2-9
1078	Structures	Sup. graphite/LARC 160	T6III-10-237-PI2-8
1077	Structures	Sup. T300/P1700 (0/90)	T6III-10-236-PS1-12
1076	Structures	Sup. T300/V378A (0/45/90/135)S2	T6III-10-235-PI5-12
1075	Structures	Sup. T300/V378A (0/45/90/135)S2	T6III-10-234-PI5-11
1074	Structures	Sup. Cation 6000/PMR 15 (0)	T6III-10-233-PI5-10
1073	Structures	Sup. P755/CE 339 (0/45/90/135)S4	T6III-10-232-EP21-8
1072	Structures	Sup. P755/CE 339 (0/45/90/135)S4	T6III-10-231-EP21-7
1071	Structures	Sup. T300/polyether sulfone/with feeding Al coating	T6III-10-230-PS12-2
1069	Structures	Sup. P100/201/2024 Al (1/20/1/20)S	T6III-10-228-AL33-7
1068	Structures	Sup. P100/201/2024 Al (1/20/1/20)S	T6III-10-227-AL33-5
1067	Structures	Sup. P100/AZ91C/AZ61A (1/10/1/10)S	T6III-10-226-MG10-8
1066	Structures	Sup. P100/AZ91C/AZ61A (1/10/1/10)S	T6III-10-225-MG10-3
1065	Structures	Sup. GY70/CE-339 (0/45/90/135)S2	T6III-10-224-EP22-10
1064	Structures	Sup. GY70/CE-339 (0/45/90/135)S2	T6III-10-223-EP22-6
1063	Structures	Sup. GY70/X-305Sn In eut (0/45/90/135)S4	T6III-10-222-EP2-6
1060	Structures	Sup. SiC whiskers/6061Al	T6III-10-219-AL31-4
1057	Structures	Sup. P100/AZ91C/AZ61A (90)	T6III-10-216-MG9-T5
1056	Structures	Sup. P100/AZ91C/AZ61A (90)	T6III-10-215-MG9-T7
1055	Structures	Sup. V50054/EZ33A/AZ318 clad. (90)	T6III-10-214-MG6-4
1050	Structures	Sup. SiC whiskers/2124 Al	T6III-10-209-AL30-3
1049	Structures	Sup. T300/P1700 (0/90)	T6III-10-208-PS1-7
1048	Structures	Sup. Cation 6000/PMR-15 (0)	T6III-10-207-PI1-12
1047	Structures	Sup. Cation 6000/PMR-15 (0)	T6III-10-206-PI1-11
1046	Structures	Sup. GY70/X904B (0)	T6III-10-205-EP7-4
1045	Structures	Sup. GY70/X904B (0/90/90/0)	T6III-10-204-EP6-4
1044	Structures	Sup. GY70/X904B (0)	T6III-10-203-EP5-4
1043	Structures	Sup. E-glass 120 Fibre/X904B (0)	T6III-10-202-EP10-4
1042	Structures	Sup. T300/2 mid-3M 113 viscoelastic tape/5208	T6III-10-201-EP20-1
1041	Structures	Sup. T300/2 mid-3M 113 viscoelastic tape/5208	T6III-10-200-EP19-1
1040	Structures	Sup. T300/2 mid-3M 113 viscoelastic tape/5208	T6III-10-199-EP18-1
1039	Structures	Sup. GY70/934 (0/45/90/135)S2	T6III-10-198-EP13-8

Obs	Application	Description	Sample ID
1038	Structures	Sinp. VS0054/EZ31-AZ318 clad (0)	T6III-10-197-MG5-10
1037	Structures	Sinp. VS0054/EZ33A/AZ318 clad (0)	T6III-10-196-MG5-21
1036	Structures	Sinp. VS0054/EZ33A/AZ318 clad (0)	T6III-10-195-MG5-4
1035	Structures	Sinp. GY70/934 (0/45/90/135)S2	T6III-10-194-EP13-7
1034	Structures	Sinp. P100/AZ31C/AZ61A (0)	T6III-10-193-MG9 L8
1033	Structures	Sinp. P100/AZ91C/AZ61A (0)	T6III-10-192-MG9 L4
1032	Structures	Sinp. VS0054/EZ33A/AZ318 (0)	T6III-10-191-MG3
1031	Structures	Sinp. VS0054/EZ33A/AZ318 (0)	T6III-10-190-MG3
1030	Structures	Sinp. VS0054/EZ33A/AZ318 (0)	T6III-10-189-MG3
1029	Structures	Sinp. GY70/CE 339 (0/45/90/135)S2	T6III-10-188-EP22-4
1028	Structures	Sinp. VS832/6061 T6/6061 Al clad. (90)	T6III-10-187-AL15-14
1027	Structures	Sinp. VS832/6061 T6/6061 Al clad (90)	T6III-10-186-AL15-5
1026	Structures	Sinp. VS832/6061 T6/6061 Al clad. (0)	T6III-10-185-AL14-17
1025	Structures	Sinp. VS832/6061 T6/6061 Al clad. (0)	T6III-10-184-AL14-3
1024	Structures	Sinp. VS832/6061 T5-6061 Al clad. (0)	T6III-10-183-AL14-18
1023	Structures	Sinp. Celcon 6000/PMR-15 (0)	T6III-10-182-P11-10
1022	Structures	Sinp. AS-3501-6 (0)	T6III-10-181-EP4-13
1021	Structures	Sinp. AS-3501-6 (0)	T6III-10-180-EP4-12
1020	Structures	Sinp. AS-3501-6 (0)	T6III-10-179-EP4-11
1019	Structures	Sinp. P755/934 (0/45/90/135)S2	T6III-10-178-EP12-8
1018	Structures	Sinp. P755/934 (0/45/90/135)S2	T6III-10-177-EP12-7
1017	Structures	Sinp. T300/P1700 (0/90)	T6III-10-176-PS1-8
1016	Structures	Sinp. VS0054/EZ33A/AZ318 clad (0)	T6III-10-172-MG5-14
1015	Structures	Sinp. graphite/glass Celcon 6000/borosilicate glass	T6III-10-167-GL3-3
1014	Structures	Sinp. VS832/6061 T6/6061 Al (0)	T6III-10-166-AL12-12
1013	Structures	Sinp. VS832/6061 T6/6061 Al (0)	T6III-10-165-AL12-11
1012	Structures	Sinp. VS832/6061 T6/6061 Al (0)	T6III-10-164-AL12-10
1011	Structures	Sinp. LAC 23-4688 elastomer	T6III-9-163-MPS-C-8
1010	Structures	Sinp. GY70/201/2024 clad. (90)	T6III-10-162-AL6-8
1009	Structures	Sinp. GY70/201/2024 clad. (90)	T6III-10-161-AL6-4
1008	Structures	Sinp. T300 tape/934 (0)	T6III-10-158-EP3-12
1007	Structures	Sinp. T300 tape/934 (0)	T6III-10-157-EP3-11
1006	Structures	Sinp. T300 tape/934 (0)	T6III-10-156-EP3-10
1005	Structures	Sinp. W-722 (Graphite/Glass fabric)/P1700	T6III-10-153-PS2-12
1004	Structures	Sinp. W-722 (Graphite/Glass fabric)/P1700	T6III-10-152-PS2-11
1003	Structures	Sinp. W-722 (Graphite/Glass fabric)/P1700	T6III-10-151-PS2-10
1002	Structures	Sinp. Invar LR35	T6III-10-150-SS1-10
999	Structures	Sinp. LAC 23-4688 elastomer	T6III-9-149-MPS-C-6
998	Structures	Sinp. GY70/X-30 (0/45/90/135)J4	T6III-10-147-EP1-8
997	Structures	Sinp. GY70/X-30 (0/45/90/135)J4	T6III-10-146-EP1-7
996	Structures	Sinp. GY70/201/2024 clad. (0)	T6III-10-145-AL5-14
995	Structures	Sinp. GY70/201/2024 clad. (0)	T6III-10-144-AL5-13
994	Structures	Sinp. GY70/201/2024 clad. (0)	T6III-10-143-AL5-6

DB#	Application	Description	Sample ID
983	Structures	Sup. LAC 23 4688, elastomer	T6III-9-142-MPS-C-5
982	Structures	Sup. GY70/201/2024 clad. (90)	T6III-10-141-AL4-8
981	Structures	Sup. GY70/201/2024 clad. (90)	T6III-10-140-AL4-7
980	Structures	Sup. GY70/201/2024 clad. (0)	T6III-10-139-AL3-13
979	Structures	Sup. GY70/201/2024 clad. (0)	T6III-10-138-AL3-11
978	Structures	Sup. GY70/201/2024 clad. (0)	T6III-10-137-AL3-10
977 04	Structures	Wire SC-6061A1	T6III-10-136-14
977 03	Structures	Wire SC-6061A1	T6III-10-136-13
977 02	Structures	Wire SC-6061A1	T6III-10-136-12
977 01	Structures	Wire SC-6061A1	T6III-10-136-11
976	Structures	Wire SC-6061A1	T6III-10-135-10
975	Structures	Wire P55 (10K1/AZ91C	T6III-10-135-9
974	Structures	Wire P100/AZ31B (Ti + B)	T6III-10-135-8
973	Structures	Wire P55 (10K1/6061A1	T6III-10-135-7
972	Structures	Wire P100/6061 Al (Ti + B)	T6III-10-135-6
971	Structures	Wire P100/6061A1	T6III-10-135-5
970	Structures	Wire P55/6061 Al (Ti + B)	T6III-10-135-4
969	Structures	Wire GY70 (81)/201	T6III-10-135-3
968	Structures	Wire P55 (102/6061 Al (Ti + B)	T6III-10-135-2
967	Structures	Wire P100/AZ61A (Ti + B)	T6III-10-135-1
966	Structures	Sup. GY70/201 clad (0/±60°)s	T6III-10-134 AL7-13
965	Structures	Sup. GY70/201 clad (0/±60°)s	T6III-10-134 AL7-12
964	Structures	Sup. GY70/201 clad (0/±60°)s	T6III-10-133 AL7-15
963	Structures	Sup. GY70/201 clad (0/±60°)s	T6III-10-133 AL7-14
962	Structures	Sup. GY70/201/2024 clad. (0/±60°)s	T6III-10-132 AL7-7
961	Structures	Sup. P75S/934, 102 15A	T6III-9-132 CM48-5
960	Structures	Sup. P75S/934, 102 15A	T6III-9-132 CM48-2
959	Structures	Sup. GY70/201/2024 clad (0/±60°)s	T6III-10-131 AL7-3
958	Structures	Sup. P75S/F593, 102 270	T6III-9-131 CM47-4
957	Structures	Sup. P75S/F593, 102 270	T6III-9-131 CM47-1
956	Structures	Mirror, GY70/201/2024 clad. (0/±60°)s	T6III-10-130 AL8-5
955	Structures	Mirror, GY70/201/2024 clad. (0/±60°)s	T6III-10-129 AL8-3
946	Structures	Sup. Celcon 6080/polyamide	T6III-10-122 P14
945	Structures	Sup. 1300 labrec/P1700, (0.90)	T6III-10-119 PS1-10
944	Structures	Sup. 1300/V378A, (0/45/90/135)S2	T6III-10-118 P15-6
943	Structures	Sup. 1300/V378A, (0/45/90/135)S2	T6III-10-117 P15-5
941	Structures	Sup. P75S/ICE 339, (0/45/90/135)S4	T6III-10-115 EP21-4
940	Structures	Sup. P75S/ICE 339, (0/45/90/135)S4	T6III-10-114 EP21-3
939	Structures	Sup. P100/AZ91C/AZ61A (±10°/10°)S	T6III-10-113 MG10-6
938	Structures	Sup. P100/AZ91C/AZ61A (±10°/10°)S	T6III-10-112 MG10-4
937	Structures	Sup. P100/201/2024 Al (±20°/20°)S	T6III-10-111 AL33-8
936	Structures	Sup. P100/201/2024 Al (±20°/20°)S	T6III-10-110 AL33-1
935	Structures	Sup. GY70-X 30/0/45/90/135)S2, Sn-In Eutectic coating	T6III-10-109 EP2-5

Obs	Application	Description	Sample ID
934	Structures	Simp. 1300/polyether sulfone with leading Al coating	T6III-10-108-PS12-1
932	Structures	Simp. SC fiber, SC S2/Al	T6III-10-106-AL32-7
931	Structures	Simp. IAC23 4500, elastomer	T6III-9-105-MPS-G-4
930	Structures	Simp. GY70/934 (0/45/90/135)S2	T6III-10-104-EP13-3
929	Structures	Simp. V50054/EZ33A/AZ31B clad. (0)	T6III-10-103-MG5-3
928	Structures	Simp. GY70/CE339 (0/45/90/135)S2 epsilon meas. SG4	T6III-10-102-EP22-8
927	Structures	Simp. W 122 (Graphite/Glass fabric)/P1700 epsilon meas. SG5	T6III-10-101-PS2-2
926	Structures	Simp. V50054/EZ33A/AZ31B clad (0) epsilon meas. SG6 CTS 4	T6III-10-100-MG3-18
923	Structures	Simp. SC fiber, SC S2/Al	T6III-10-97-AL32-6
922	Structures	Simp. V5832/6061 16-6061 Al clad (0)	T6III-10-96-AL14-4
921	Structures	Simp. GY70/201/2024 clad (90)	T6III-10-95-AL6-7
920	Structures	Simp. SC whiskers/2124 Al	T6III-10-94-AL30-1
919	Structures	Simp. SC whiskers/6061Al	T6III-10-93-AL31-3
918	Structures	Simp. V50054/EZ33A/AZ31B clad. (90)	T6III-10-92-MG6-3
917	Structures	Simp. 1300 fabric/P1700. (0 90)	T6III-10-91-PS1-4
916	Structures	Simp. 1300-V378A 160	T6III-10-90-PI2-4
915	Structures	Simp. Ceton 6000/PMR 15 (0)	T6III-10-89-PI1-5
914	Structures	Simp. V5837-6061 16-6061 Al clad (0)	T6III-10-88-AL14-16
913	Structures	Simp. GY70/CE 339 (0/45/90/135)S2	T6III-10-87-EP22-2
912	Structures	Simp. GY70/X9048 [-45/(-45)/2/-45]4T	T6III-10-86-EP7-2
911	Structures	Simp. LAC 23 4688, elastomer	T6III-9-85-MPS-C-2
910	Structures	Simp. GY70/X9048, (0/90/90/0)	T6III-10-84-EP6-2
909	Structures	Simp. GY70/X9048, (0)	T6III-10-83-EP5-2
908	Structures	Simp. E glass 120 fabric/X9048, (0)	T6III-10-80-EP10-2
907	Structures	Simp. GY70/201/2024, clad (90)	T6III-10-79-AL6-3
906	Structures	Simp. GY70/934 (0/45/90/135)S2	T6III-10-76-EP13-4
905	Structures	Simp. P100/AZ91C/AZ61A (0')	T6III-10-75-MG9-L7
904	Structures	Simp. V50054/EZ33A/AZ31B clad. (0), epsl meas. SG1	T6III-10-74-MG5-22
903	Structures	Simp. 1300/polyether sulfone, epsl meas. SG2	T6III-10-73-PS11-2
902	Structures	Simp. Ceton 6000/PMR 15, epsl meas. SG3	T6III-10-72-PI1-6
901	Structures	Simp. V50054/EZ33A/AZ31B, (90)	T6III-10-71-MG4-14
900	Structures	Simp. V50054/EZ33A/AZ31B, (90)	T6III-10-70-MG4-3
899	Structures	Simp. P100/AZ91C/AZ61A (0)	T6III-10-69-MG9-L6
898	Structures	Simp. GY70/X 30 (0/45/90/135)S2, epsl meas. SG7	T6III-10-68-EP1-3
897	Structures	Simp. V5832/6061 160, epsl meas. SG8	T6III-10-67-PI2-2
896	Structures	Simp. 1300/P1700 (0/90), epsl meas. SG9	T6III-10-66-PS1-2
895	Structures	Simp. 1300/V378A (0/45/90/135)S2, epsl meas. SG10	T6III-10-65-PI5-3
894	Structures	Simp. AS3501-6, epsl meas. SG11	T6III-10-64-EP4-3
893	Structures	Simp. 1300 tape/934, epsl meas. SG12 CTS 13	T6III-10-63-EP3-2
892	Structures	Simp. AS3501-6 (0)	T6III-10-58-EP4-7
891	Structures	Simp. AS3501-6 (0)	T6III-10-57-EP4-6
890	Structures	Simp. P755/934, (0/45/90/135)S2	T6III-10-56-EP12-4
889	Structures	Simp. P755/934, (0/45/90/135)S2	T6III-10-55-EP12-3
888	Structures		
887	Structures		
886	Structures		
885	Structures		
884	Structures		
883	Structures		
882	Structures		
881	Structures		

ORA Application	Description	Sample ID
860 Structures	Strp. Graphite/glass Celcon 6000/borosilicate glass	T6III-10-54-GL1-2
873 Structures	Strp. V50054E233A/AZ318, clad (0)	T6III-10-47-MG5-13
872 Structures	Strp. GY70201/2024 clad, (0)	T6III-10-46-AL3-6
871 Structures	Strp. P100/AZ91C/AZ61A (90)	T6III-10-45-MG9-13
870 Structures	Strp. V5B32-6061 T6-6061 Al clad (0)	T6III-10-44-AL12-9
869 Structures	Strp. V5B32-6061 T6-6061 Al clad (0)	T6III-10-43-AL12-8
868 Structures	Strp. V5B32-6061 T6-6061 Al clad (0)	T6III-10-42-AL12-7
867 Structures	Strp. Invar LR35, epsl meas. SG13, CTS-2	T6III-10-41-SS1-4
866 Structures	Strp. Invar LR35, epsl meas. SG14	T6III-10-40-SS1-2
865 Structures	Strp. V5B32-6061 T6-6061 Al clad (90) epsl meas. SG15	T6III-10-39-AL15-13
864 18 Structures	Wire. SC-6061Al	T6III-10-38-44
864 17 Structures	Wire. SC-6061Al	T6III-10-38-43
864 16 Structures	Wire. SC-6061Al	T6III-10-38-42
864 15 Structures	Wire. SC-6061Al	T6III-10-38-41
864 14 Structures	Wire. SC-6061Al	T6III-10-38-40
864 13 Structures	Wire. SC-6061Al	T6III-10-38-39
864 12 Structures	Wire. SC-6061Al	T6III-10-38-38
864 11 Structures	Wire. SC-6061Al	T6III-10-38-37
864 1 Structures	Wire. SC-6061Al	T6III-10-38-36
864 09 Structures	Wire. SC-6061Al	T6III-10-38-35
864 08 Structures	Wire. SC-6061Al	T6III-10-38-34
864 07 Structures	Wire. SC-6061Al	T6III-10-38-33
864 06 Structures	Wire. SC-6061Al	T6III-10-38-32
864 05 Structures	Wire. SC-6061Al	T6III-10-38-31
864 04 Structures	Wire. SC-6061Al	T6III-10-38-30
864 03 Structures	Wire. SC-6061Al	T6III-10-38-29
864 02 Structures	Wire. SC-6061Al	T6III-10-38-28
864 01 Structures	Wire. SC-6061Al	T6III-10-38-27
863 04 Structures	Wire. P55 (10K) AZ91C	T6III-10-37-26
863 03 Structures	Wire. P55 (10K) AZ91C	T6III-10-37-25
863 02 Structures	Wire. P55 (10K) AZ91C	T6III-10-37-24
862 01 Structures	Wire. P100/AZ31B (Ti + B)	T6III-10-37-23
861 Structures	Strp. T300 tape/934 (0)	T6III-10-36-EP3-6
860 Structures	Strp. LAC 23-4588, elastomer	T6III-9-35-MPS-C-1
859 Structures	Strp. T300 tape/934 (0)	T6III-10-34-EP3-5
858 Structures	Strp. W 722(Graphite/Glass fabric)/P1700	T6III-10-31-PS2-6
855 Structures	Strp. W 722(Graphite/Glass fabric)/P1700	T6III-10-30-PS2-5
854 Structures	Strp. GY70/CE339, (0/45/90/135)S2	T6III-10-29-EP22-5
853 Structures	Strp. Invar LR35	T6III-10-28-SS1-9
850 Structures	Strp. P100/AZ91C/AZ61A (90)	T6III-10-25-MG9-T1
849 Structures	Strp. GY70/X-30 (0/45/90/135)4	T6III-10-24-EP1-4
848 Structures	Strp. GY70/201/2024 clad, (0)	T6III-10-23-AL5-12
847 Structures	Strp. GY70/201/2024 clad, (0)	T6III-10-22-AL5-11

Doc	Application	Description	Sample ID
846	Structures	Sup. GY70201/2024 clad. (0)	T6III-10-21-AL5-5
845	Structures	Sup. GY70201/2024 clad. (0)	T6III-10-20-AL3-5
844	Structures	Sup. GY70201/2024 clad. (90)	T6III-10-19-AL4-4
843	Structures	Sup. GY70201/2024 clad. (90)	T6III-10-18-AL4-3
842	Structures	Sup. P55-6061-6061AI (90) epsl meas SG16	T6III-10-17-AL15-4
841	Structures	Sup. P55-6061-6061AI (0) epsl meas SG17 CTS1	T6III-10-16-AL14-11
840	Structures	Sup. GY70201/2024 clad (0) epsl meas SG18	T6III-10-15-AL3-12
839 02	Structures	Wire P100-AZ318 (1. - B)	T6III-10-14-22
839 01	Structures	Wire P100-AZ318 (1. - B)	T6III-10-14-21
838 04	Structures	Wire P55 (10K) 6061AI	T6III-10-14-20
838 03	Structures	Wire P55 (10K) 6061AI	T6III-10-14-19
838 02	Structures	Wire P55 (10K) 6061AI	T6III-10-14-18
838 01	Structures	Wire P55 (10K) 6061AI	T6III-10-14-17
837 04	Structures	Wire P100-6061AI (1. - B)	T6III-10-14-16
837 03	Structures	Wire P100-6061AI (1. - B)	T6III-10-14-15
837 02	Structures	Wire P100-6061AI (1. - B)	T6III-10-14-14
837 01	Structures	Wire P100-6061AI (1. - B)	T6III-10-14-13
836	Structures	Wire. T300-6061AI	T6III-10-14-12
835	Structures	Wire. T300-6061AI	T6III-10-13-11
834 02	Structures	Wire. P55-6061 (1. - B)	T6III-10-13-10
834 01	Structures	Wire. P55-6061AI (1. - B)	T6III-10-13-9
833 02	Structures	Wire. GY70 (81y201	T6III-10-13-8
833 01	Structures	Wire. GY70 (81y201	T6III-10-13-7
832 02	Structures	Wire. P55 (102)-6061 AI (1. - B)	T6III-10-13-6
832 01	Structures	Wire. P55 (102)-6061 AI (1. - B)	T6III-10-13-5
831 03	Structures	Wire. P100-AZ612 (1. - B)	T6III-10-13-4
831 02	Structures	Wire. P100-AZ61A (1. - B)	T6III-10-13-3
831 01	Structures	Wire. P100-AZ61A (1. - B)	T6III-10-13-2
830	Structures	Sup. GY70201/2024 clad. (0+60°)s. epsilon meas. SG19	T6III-10-13-1
829	Structures	Sup. P100-EZ31A-AZ318 (6 ply) epsl meas. SG20	T6III-10-12-AL7-4
828 01	Structures	Sup. GY70201/2024 clad (0+60°)s	T6III-10-11 MG7-6
828	Structures	Sup. P75S-934	T6III-10-10-AL7-6
827	Structures	Sup. P75S-934	T6III-9-10-CM48-4
826	Structures	Sup. P75S-593	T6III-9-10-CM48-1
825	Structures	Sup. P75S-593	T6III-9-9-CM47-6
824 5	Structures	VS0050E-Z33A-AZ318 (0+60°)s	T6III-9-9-CM47-3
823	Structures	Graphite/glass Cation 6000/borosilicate glass	T6III-10-9-MG7
816	Structures	HA-43 polyarylate/ polyphenylene oxide blend/Low temp PAN composite	T6III-10-7-GI2-2
815	Structures	HA-43 polyarylate/ polyphenylene oxide (PRO) blend/T300 carbon fabric composite	T3IV-16-90-D
814	Structures	Aerospace polyarylate/ polyphenylene oxide (PAA)/T300 carbon fabric composite	T3IV-16-89-C
813	Structures	HA-43 polyarylate/ polyphenylene oxide (PAA)/T300 carbon fabric composite	T3IV-16-88-B
798.5	Structures	Various materials, composites and metals	T3IV-16-87-A
			T3-V

DB#	Application	Description	Sample ID
792	Structures	Graphite/epoxy (condensed) (1:300 unidirectional tape/Fiberte EA 934 epoxy resin [0°])	T31V-8-68-103
793	Structures	Graphite/polysulfone (1:300 P 1700 polysulfone resin [0°/90°])	T31V-8-67-25
761	Structures	E glass fabric/CE 339 [(0/16)] 250°f	T31V-9-35-CM39b
760	Structures	KEVLAR/epoxy K49 fabric/K904B [(0/16)] 350°f	T31V-9-34-CM37b
759	Structures	IM7 176/34 fabric [(0/2/90/2)] 350°f	T31V-9-33-CM41q
758	Structures	IM7 176/34 fabric [(0/16)] 350°f	T31V-9-32-CM22b
757	Structures	Carbon 6000-E 768 [(0/16)] 350°f	T31V-9-31-CM29b
756	Structures	IM7 176/34 [(0/16)] 300°f	T31V-9-30-CM43b
755	Structures	IM7 176/34 [(45/45) 350°f	T31V-9-29-CM34a
754	Structures	1:50(PAN)/E 788 [(0/16)] 350°f	T31V-9-28-CM17b
753	Structures	1:50(PAN)/K904B 19 [(0/16)] 350°f	T31V-9-27-CM13a
752	Structures	1:50(PAN)/K934 [(0/16)] 350°f	T31V-9-26-CM9b
751	Structures	50/50/763 [(0/16)] 350°f	T31V-9-25-CM5b
750	Structures	CY70/CE 339 [(0/16)] 250°f	T31V-9-24-CM1a
729	Structures	Carbon 6000-E 788 [(45/45/45/45) 350°f	T31V-9-70-CM31b
728	Structures	1:50/763 1-45/45/27-45/41 350°f	T31V-9-69-CM45a
727	Structures	KEVLAR/epoxy K49 fabric/K904B (45/45) 350°f	T31V-9-68-CM38a
720	Structures	1:50(PAN)/E 788 [(45/45/27-45/41) 350°f	T31V-9-67-CM19d
719	Structures	1:50(PAN)/K904B [(0/16) 45/45/45/27-45/41	T31V-9-66-CM15c
718	Structures	1:50(PAN)/K934 [(45/45/45/27-45/41) 350°f	T31V-9-65-CM11a
717	Structures	50/50/763 [(45/45/27-45/41) 350°f	T31V-9-64-CM7d
716	Structures	CY70/CE 339 [(45/45/45/27-45/41) 250°f	T31V-9-63-CM3d
715	Structures	Silicon nitride, 2 layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	T31V-8-58-S3
709	Structures	Silicon nitride, 2 layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	T31V-8-57-S15
708	Structures	Graphite/epoxy (1:300 unidirectional tape/Fiberte EA934 epoxy resin [0°])	T31V-8-56-11
707	Structures	Graphite/polymide (HIS 7 unidirectional tape/PMR 15 [0°])	T31V-8-55-31
706	Structures	Three dimensional quartz phenolic	T31V-3-54-II
705	Structures	Three dimensional quartz phenolic	T31V-3-53-II
704	Structures	Graphite polysulfone	T31V-3-52-IV
703	Structures	Graphite polysulfone	T31V-3-51-IV
702	Structures	Tape-wrapped carbon phenolic	T31V-3-50-I
701	Structures	Tape-wrapped carbon phenolic	T31V-3-49-I
700	Structures	Pyridic carbon, Pyro Carb 431	T31V-3-48-VII
699	Structures	Pyridic carbon, Pyro Carb 431	T31V-3-47-VII
698	Structures	Aluminum 6061 T6	T31V-3-46-V
697	Structures	Aluminum 6061 T6	T31V-3-45-V
694	Structures	Aluminum 2024, AlCu alloy	T31V-3-42-IIIa
693	Structures	Aluminum 2024, AlCu alloy	T31V-3-41-IIIa
692	Structures	Special carbon/tungsten-bearing resin	T31V-3-40-IV
691	Structures	Special carbon/tungsten-bearing resin	T31V-3-39-IV
690	Structures	Graphite polymide	T31V-3-38-III
689	Structures	Graphite polymide	T31V-3-37-III
680	Structures	Carbon 6000-E 768 [(0/2/90/2)] 350°f	T31V-2-28-CM32b

DB#	Application	Description	Sample ID
679	Structures	T50/F263 [(0)2/(90)2]T, 300°F	T3111-9-27-CM46a
678	Structures	HMS/3501-5A[(0)2/(90)2]T, 290°F	T3111-9-26-CM28b
677	Structures	T-50(PAN)/E788[(0)2/(90)2]T, 350°F	T3111-9-25-CM20a
676	Structures	T-50(PAN)/X904B-10[(0)2/(90)2]T, 350°F	T3111-9-24-CM16b
675	Structures	T-50(PAN)/934[(0)2/(90)2]T, 350°F	T3111-9-23-CM12b
670	Structures	Celcon 6000/E7888[+45/(-45)2/+45]4T, 350°F	T3111-9-18-CM31a
669	Structures	T-50/F263 [+45/(-45)2/+45]4T, 300 F	T3111-9-17-CM45b
668	Structures	KEVLAR/epoxy; K49 fabric/X904B (+45)4S, 350 F	T3111-9-16-CM38b
667	Structures	T-50(PAN)/E788[+45/(-45)2/+45]4T, 350 F	T3111-9-15-CM19c
666	Structures	T-50(PAN)/X904B 10/+45/(-45)2/+45]4T, 350 F	T3111-9-14-CM15b
665	Structures	T-50(PAN)/934[+45/(-45)2/+45]4T, 350 F	T3111-9-13-CM11d
664	Structures	T50/F263 [+45/(-45)2/+45]4T, 350 F	T3111-9-12-CM7c
663	Structures	GY70/CE-339[+45/(-45)2/+45]4T, 250°F	T3111-9-11-CM3c
662	Structures	Celcon 6000/E788[0/(90)2/0]4T, 350°F	T3111-9-10-CM30a
661	Structures	T50/F263 10/(90)2/0]4T, 250 F	T3111-9-9-CM44b
660	Structures	KEVLAR/epoxy K49 fabric/X904B [(0)2/(90)2]T, 350 F	T3111-9-8-CM42a
659	Structures	T-50(PAN)/E788[0/(90)2/0]4T, 350°F	T3111-9-7-CM18b
658	Structures	T-50(PAN)/X904B 10/[0/(90)2/0]4T, 350 F	T3111-9-6-CM14b
657	Structures	T-50(PAN)/934[0/(90)2/0]4T, 350 F	T3111-9-5-CM10a
656	Structures	T50/F263 [(0)2/(90)2]T, 350°F	T3111-9-4-CM8b
655	Structures	T50/F263 [0/(90)2/0]4T, 350°F	T3111-9-3-CM6a
654	Structures	GY70/CE-339, [(0)2/(90)2]T, 250°F	T3111-9-2-CM4b
653	Structures	GY70/CE-339, [0/(90)2/0]4T, 250°F	T3111-9-1-CM2a
652	Structures	HA-43 polyarylate/ethylene (PAA)/polybenzimidazole fiber (PBI) composite	T311 16-76 G
651	Structures	Polyphenylquinoxaline (PPO) film on Al	T311 18 75 Y
634	Structures	Composite (unknown fiber/matrix)	T311 16-58-F
519	Structures	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L6VI-8-20 S5
518	Structures	Silicon nitride foam	L6VI-8 19-F1
517	Structures	Silicon nitride, 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L6VI-8-18-S4
499	Structures	Strip, VSB32/6061-16/6061 Al clad (0)	L6111-10-244-AL14-6
495	Structures	Strip, GY70/934 (0/45/90/135)S2	L6111-10-240-EP13-13
492	Structures	Strip, Graphite/LARC-160	L6111-10-237 PI2 7
491	Structures	Strip, Graphite/LARC-160	L6111-10-236-PI2 6
490	Structures	Strip, Graphite/LARC-16	L6111-10-235-PI2 5
489	Structures	Strip, T300 Fabric/P1700 (0, 90)	L6111-10-234 PS1-11
488	Structures	Strip, T300V378A (16 ply)	L6111-10-233-PI5-9
487	Structures	Strip, T300V378A (16 ply)	L6111 10-232-PI5-8
486	Structures	Strip, T300V378A (16 ply)	L6111-10-231-PI5-7
485	Structures	Strip, P75S/CE-339 (0/45/90/135)S4	L6111-10-230-EP21-6
484	Structures	Strip, P75S/CE-339 (0/45/90/135)S4	L6111-10-229-EP21-5
483	Structures	Strip, SiC fibers/Al	L6111-10-228-AL32-2
482	Structures	Strip, SiC fibers/Al	L6111-10-227-AL32-1
481	Structures	Strip, SiC whiskers/2124	L6111-10-226-AL30-4

DBS Application	Description	Sample ID
480 Structures	Strip. SiC whiskers/6061	L6III-10-225-AL31-2
479 Structures	Strip. GY70/CE-339 (0/45/90/135)S2	L6III-10-224-EP22-9
478 Structures	Strip. GY70/X 30 (0/45/90/135)4	L6III-10-223-EP2-4
477 Structures	Strip. GY70/X-30/Sn-In eut (0/45/90/135)4	L6III-10-222-EP2-3
476 Structures	Strip. P75S/CE 339 (0/45/90/135)S4	L6III-10-221-EP21-15
475 Structures	Strip. P100/AZ91C/AZ61A (0)	L6III-10-220-MG9-L5
474 Structures	Strip. P100/AZ91C/AZ61A (0)	L6III-10-219-MG9-L3
473 Structures	Strip. VS0054/EZ33A/AZ31B (0)	L6III-10-216-MG3-15
470 Structures	Strip. VS0054/EZ33A/AZ31B clad (90)	L6III-10-215-MG5-15
469 Structures	Strip. VS0054/EZ33A/AZ31B clad (90)	L6III-10-214-MG6-2
468 Structures	Strip. VS0054/EZ33A/AZ31B (90)	L6III-10-213-MG6-8
464 Structures	Strip. graphite glass. Celson 6000/borosilicate glass	L6III-10-209-GL3-2
463 Structures	Strip. T300 Fabric/P-1700 (0, 90)	L6III-10-208-PS1-6
462 Structures	Strip. T300 Fabric/P 1700 (0, 90)	L6III-10-207-PS1-5
461 Structures	Strip. GY70/X90-1B [(+45/-45)2/+45]4T	L6III-10-206-EP7-3
460 Structures	Strip. GY70/X90-1B (0°/90/90/0)	L6III-10-205-EP6-3
459 Structures	Strip. GY70/X90-1B (0°)	L6III-10-204-EP5-3
458 Structures	Strip. HMS/3501-5A [(0)16]T	L6III-10-203-EP9-2
457 Structures	Strip. HMS/3501-5A [(0/90)2/0]4T	L6III-10-202-EP8-2
456 Structures	Strip. HMS/3501-5A [(+45/-45)2/+45]4T	L6III-10-201-EP11-2
455 Structures	Strip. T-300/5208	L6III-10-200-EP16-2
454 Structures	Strip. E-glass 120 Fabric/X90-1B (0)	L6III-10-199-EP10-3
453 Structures	Strip. T300/2 mil-3M 113 viscoelastic tape/5208	L6III-10-198-EP17-1
452 Structures	Strip. GY70/934 (0/45/90/135)S2	L6III-10-197-EP13-6
451 Structures	Strip. VS0054/EZ33A/AZ31B clad (0)	L6III-10-196-MG5-8
450 Structures	Strip. VS0054/EZ33A/AZ31BA clad (0)	L6III-10-195-MG3-3
449 Structures	Strip. VS0054/EZ33A/AZ31B (0)	L6III-10-194-MG5-2
448 Structures	Strip. GY70/934 (0/45/90/135)S2	L6III-10-193-EP13-5
447 Structures	Strip. VS0054/EZ33A/AZ31B (90)	L6III-10-192-MG4-2
446 Structures	Strip. P100/201/2024 Al [(+20°/-20°)S	L6III-10-191-AL33-4
445 Structures	Strip. VS0054/EZ33A/AZ31B (0)	L6III-10-190-MG3-2
444 Structures	Strip. P100/201/2024 Al [(+20°/-20°)S	L6III-10-189-AL33-3
443 Structures	Strip. GY70/CE339 (0/45/90/135)S2	L6III-10-188-EP22-3
442 Structures	Strip. VS832/6061-T6/6061 Al clad (90)	L6III-10-187-AL15-9
441 Structures	Strip. VS832/6061-T6/6061 Al clad (90)	L6III-10-186-AL15-2
440 Structures	Strip. VS832/6061-T6/6061 Al clad (0)	L6III-10-185-AL14-15
439 Structures	Strip. VS832/6061-T6/6061 Al clad (0)	L6III-10-184-AL14-2
438 Structures	Strip. VS832/6061-T6/6061 Al clad (0)	L6III-10-183-AL14-9
437 Structures	Strip. Celson 6000/PMR-15 (0)	L6III-10-182-P11-7
436 Structures	Strip. AS/3501-6 (0)	L6III-10-181-EP4-10
435 Structures	Strip. AS/3501-6 (0)	L6III-10-180-EP4-9
434 Structures	Strip. AS/3501-6 (0)	L6III-10-179-EP4-8
433 Structures	Strip. P75S/934 (0/45/90/135)S2	L6III-10-178-EP12-6

DB#	Application	Description	Sample ID
432	Structures	Strp. P75S/934, (0/45/90/135)S2	L6III-10-177-EP12-5
474	Structures	Strp. VS0054/EZ33NAZ31B clad (0°)	L6III-10-169-MG5-12
423	Structures	Strp. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10-168-MG10-2
422	Structures	Strp. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10-167-MG10-1
421	Structures	Strp. VSB32/6061-T6/6061 Al (0)	L6III-10-166-AL12-6
420	Structures	Strp. VSB32/6061-T6/6061 Al (0)	L6III-10-165-AL12-5
419	Structures	Strp. VSB32/6061-T6/6061 Al (0)	L6III-10-164-AL12-4
418	Structures	Strp. GY70/201/2024 clad, (90°)	L6III-10-163-AL6-10
417	Structures	Strp. GY70/201/2024 clad, (90°)	L6III-10-162-AL6-6
416	Structures	Strp. GY70/201/2024 clad, (90°)	L6III-10-161-AL6-2
413	Structures	Strp. T300 tape/934, (0)	L6III-10-158-EP3-9
412	Structures	Strp. T300 tape/934, (0)	L6III-10-157-EP3-8
411	Structures	Strp. T300 tape/934, (0)	L6III-10-156-EP3-7
408	Structures	Strp. W 722(Graphite/Glass fabric)/P1700	L6III-10-153-PS2-9
407	Structures	Strp. W 722(Graphite/Glass fabric)/P1700	L6III-10-152-PS2-8
406	Structures	Strp. W 722(Graphite/Glass fabric)/P1700	L6III-10-151-PS2-7
405	Structures	Strp. Invar LR35	L6III-10-150-SS1-8
404	Structures	Strp. GY70/CE339 (0/45/90/135)S2	L6III-10-149-FP22-11
402	Structures	Strp. GY70/X-30, (0/45/90/135)4	L6III-10-147-EP1-6
401	Structures	Strp. GY70/X-30, (0/45/90/135)4	L6III-10-146-EP1-5
400	Structures	Strp. GY70/201/2024 clad, (0°)	L6III-10-145-AL5-10
399	Structures	Strp. GY70/201/2024 clad, (0°)	L6III-10-144-AL5-4
398	Structures	Strp. GY70/201/2024 clad, (0°)	L6III-10-143-AL5-3
397	Structures	Strp. VSB32/6061-T6/6061 Al clad, (90°)	L6III-10-142-AL15-10
396	Structures	Strp. GY70/201/2024 clad, (90°)	L6III-10-141-AL4-6
395	Structures	Strp. GY70/201/2024 clad, (90°)	L6III-10-140-AL4-5
394	Structures	Strp. GY70/201/2024 clad, (0°)	L6III-10-139-AL3-9
393	Structures	Strp. GY70/201/2024 clad, (0°)	L6III-10-138-AL3-8
391 04	Structures	Wire, SiC/6061 Al	L6III-10-136-14
391 03	Structures	Wire, SiC/6061 Al	L6III-10-136-13
391 02	Structures	Wire, SiC/6061 Al	L6III-10-136-12
391 01	Structures	Wire, SiC/6061 Al	L6III-10-136-11
390	Structures	Wire, SiC/6061 Al	L6III-10-135-10
389	Structures	Wire, P55 (10K)/AZ91C	L6III-10-135-9
388	Structures	Wire, P100/AZ31B (Ti + B)	L6III-10-135-8
387	Structures	Wire, P55 (10K)/6061 Al	L6III-10-135-7
386	Structures	Wire, P100/6061 Al (Ti + B)	L6III-10-135-6
385	Structures	Wire, T300/6061Al	L6III-10-135-5
384	Structures	Wire, P55/6061Al (Ti + B)	L6III-10-135-4
383	Structures	Wire, GY70 (8T)/201	L6III-10-135-3
382	Structures	Wire, P55 (102)/6061 Al (Ti + B)	L6III-10-135-2
381	Structures	Wire, P100/AZ61A (Ti + B)	L6III-10-135-1
380	Structures	Strp. P75S/F593, 102-270	L6III-9-134-C47-12

DS#	Application	Description	Sample ID
379	Structures	Strp. P75Sf593, 102-270	L6III-9-134-C47-9
378	Structures	Strp. P75Sf934, 102-15A	L6III-9-133-C48-10
377	Structures	Strp. P75Sf934, 102-15A	L6III-9-133-C48-7
376	Structures	Strp. GY70/201/2024 clad. (0/±60°)s	L6III-10-132-AL7-5
375	Structures	Strp. VS0054/EZ33A/AZ31B clad. (0/±60°)s	L6III-10-131-MG7-7
374	Structures	Mirror. GY70/201/2024 clad (0/±60°)s	L6III-10-130-AL8-2
367	Structures	Mirror. GY70/201/2024 clad(0/±60°)s	L6III-10-123-AL8-4
366	Structures	Strp. Celion 6000/polyimide	L6III-10-122-PI3
365	Structures	Strp. graphite/LARC 160	L6III-10-121-PI2-3
364	Structures	Strp. AS/3501-6 (0)	L6III-10-120-EP4-5
363	Structures	Strp. T300 Fabric/P1700, (0/90)	L6III-10-119-PS1-9
362	Structures	Strp. T300/V378A (0/45/90/135)S2	L6III-10-118-PI5-4
361	Structures	Strp. T300/V378A (0/45/90/135)S2	L6III-10-117-PI5-1
360	Structures	Strp. SiC fibers/Al	L6III-10-116-AL32-8
359	Structures	Strp. P75S/CE339 (0/45/90/135)S4	L6III-10-115-EP21-2
358	Structures	Strp. P75S/CE399 (0/45/90/135)S4	L6III-10-114-EP21-1
357	Structures	Strp. P100/201/2024 (+20°/-20°)S	L6III-10-113-AL33-6
356	Structures	Strp. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10-112-MG10-7
355	Structures	Strp. P100/AZ91C/AZ61A (+10°/-10°)S	L6III-10-111-MG10-5
354	Structures	Strp. GY70/CE339 (0/45/90/135)S2	L6III-10-110-EP22-7
352	Structures	Strp. T300/P1700/Al flake	L6III-10-108-PS9
350	Structures	Strp. P100/201/2024 (+20°/-20°)S	L6III-10-106-AL33-2
349	Structures	Strp. Graphite/LARC-160, epsilon meas., SG1	L6III-10-105-PI2-1
348	Structures	Strp. T300/V378A, epsilon meas., SG2 (0/45/90/135)S2	L6III-10-104-PI5-2
347	Structures	Strp. T300/polyether sulfone, epsilon meas., SG3	L6III-10-103-PS11-1
346	Structures	Strp. GY70/X-30/Sn-In eut (0/45/90/135)4 epsilon meas., SG4	L6III-10-102-EP1-1
345	Structures	Strp. Celion 6000/PMR-15, epsilon meas., SG5 (0)	L6III-10-101-PI1-1
344	Structures	Strp. AS/3501-6(0) epsilon meas., SG6	L6III-10-100-EP4-2
343	Structures	Strp. GY70/X-30/Sn-In eut (0/45/90/135)4	L6III-10-99-EP2-2
342	Structures	Strp. GY70/X-30/Sn-In eut (0/45/90/135)4	L6III-10-98-EP2-1
341	Structures	Strp. graphite/glass: Celion 6000/borosilicate glass	L6III-10-97-GL3-1
340	Structures	Strp. SiC whiskers/2124 Al	L6III-10-96-AL30-2
339	Structures	Strp. SiC whiskers/6061 Al	L6III-10-95-AL31-1
338	Structures	Strp. VS0054/EZ33A/AZ31B clad. (90)	L6III-10-94-MG6-9
337	Structures	Strp. SiC fibers/Al	L6III-10-93-AL32-4
336	Structures	Strp. VS0054/EZ33A/AZ31B clad. (90)	L6III-10-92-MG6-1
335	Structures	Strp. T300 Fabric/P1700, (0/90)	L6III-10-91-PS1-3
334	Structures	Strp. GY70/CE339 (0/45/90/135)S2	L6III-10-90-EP22-1
333	Structures	Strp. Celion 6000/PMR-15(0)	L6III-10-89-PI1-4
332	Structures	Strp. Celion 6000/PMR-15 (0)	L6III-10-88-PI1-3
331	Structures	Strp. HMS/3501-5A, (0)	L6III-10-87-EP9-1
330	Structures	Strp. HMS/3501-5A, (0/90/90/0)4	L6III-10-86-EP8-1
329	Structures	Strp. GY70/X904B, [+45/(-45)2/+45]4	L6III-10-85-EP7-1

DB#	Application	Description	Sample ID
326	Structures	Strp. GY70/X904B. (0/90/90/0)	L6III-10-84-EP6-1
327	Structures	Strp. GY70/X904B. (0)	L6III-10-83-EP5-1
324	Structures	Strp. E-glass 120 Fabric/X904B. (0)	L6III-10-80-EP10-1
323	Structures	Strp. VSB32/6061 T6/6061 Al clad (0)	L6III-10-79-AL14-14
322	Structures	Strp. VSB32/6061 T6/6061 Al clad (0)	L6III-10-78-AL14-1
320	Structures	Strp. GY70/934 (0/45/90/135)S2	L6III-10-76-EP13-2
319	Structures	Strp. VS0054/EZ33A/AZ31B clad (0)	L6III-10-75-MG5-6
318	Structures	Strp. GY70/201/2024 clad (90)	L6III-10-74-AL6-9
317	Structures	Strp. P100/AZ91C/AZ61A (90)	L6III-10-73-MG9 T6
316	Structures	Strp. GY70/934 (0.45.90.135)S2	L6III-10-72-EP13-1
315	Structures	Strp. VS0054/EZ33A/AZ31B clad. (0)	L6III-10-71-MG3-1
314	Structures	Strp. P100/AZ91C/AZ61A (90)	L6III-10-70-MG9 T2
313	Structures	Strp. VS0054/EZ33A/AZ31B clad. (0)	L6III-10-69-MG3-5
312	Structures	Strp. I300 Fabric/P1700, epsilon meas. SG7. (0/90)	L6III-10-68-PS1-1
311	Structures	Strp. W.722(Graphite/Glass fabric)/P1700, epsilon meas. SG8	L6III-10-67-PS2-1
310	Structures	Strp. I300 taper/934 (0), epsilon meas. SG9, CTS 1	L6III-10-66-EP3-1
308	Structures	Strp. Invar I R35 epsilon meas. SG11, CTS 2	L6III-10-64-SS1-3
307	Structures	Strp. Invar I R35 epsilon meas. SG12	L6III-10-63-SS1-1
304	Structures	Strp. VSB32/6061 T6/6061 Al clad. (0)	L6III-10-60-AL12-3
303	Structures	Strp. VSB32/6061 T6/6061 Al clad. (0)	L6III-10-59-AL12-2
302	Structures	Strp. W.722(Graphite/Glass fabric)/P1700	L6III-10-58-PS2-3
301	Structures	Strp. AS/3501-6 (0)	L6III-10-57-EP4-4
300	Structures	Strp. P75S/934 (0/45/90/135)S2	L6III-10-56-EP12-2
299	Structures	Strp. P75S/934 (0/145/90/135)S2	L6III-10-55-EP12-1
298	Structures	Strp. graphite/glass Cello 6000/borosilicate glass	L6III-10-54-GL1-1
291	Structures	Strp. P100/AZ91C/AZ61A (0)	L6III-10-47-MG9-L2
288	Structures	Strp. GY70/201/2024 clad (90)	L6III-10-44-AL6-5
287	Structures	Strp. GY70/201/2024 clad (90)	L6III-10-43-AL6-1
286	Structures	Strp. VSB32/6061 T6 Al/6061 clad (0)	L6III-10-42-AL12-1
285	Structures	Strp. VS0054/EZ33A/AZ31B (0), epsl meas. SG13 clad	L6III-10-41-MG5-23
284	Structures	Strp. VS0054/EZ33A/AZ31B (0), epsl meas. SG14, CTS3	L6III-10-40-MG3-17
283	Structures	Strp. VSB32/6061 T6 Al/6061 clad (90), epsl meas. SG15	L6III-10-39-AL15-8
282 18	Structures	Wire. SiC/6061 Al	L6III-10-38-44
282 17	Structures	Wire. SiC/6061 Al	L6III-10-38-43
282 16	Structures	Wire. SiC/6061 Al	L6III-10-38-42
282 15	Structures	Wire. SiC/6061 Al	L6III-10-38-41
282 14	Structures	Wire. SiC/6061 Al	L6III-10-38-40
282 13	Structures	Wire. SiC/6061 Al	L6III-10-38-39
282 12	Structures	Wire. SiC/6061 Al	L6III-10-38-38
282 11	Structures	Wire. SiC/6061 Al	L6III-10-38-37
282 1	Structures	Wire. SiC/6061 Al	L6III-10-38-36
282 09	Structures	Wire. SiC/6061 Al	L6III-10-38-35
282 08	Structures	Wire. SiC/6061 Al	L6III-10-38-34

DB#	Application	Description	Sample ID
282 07	Structures	Wire, SiC/6061 Al	L6III-10-38-33
282 06	Structures	Wire, SiC/6061 Al	L6III-10-38-32
282 05	Structures	Wire, SiC/6061 Al	L6III-10-38-31
282 04	Structures	Wire, SiC/6061 Al	L6III-10-38-30
282 03	Structures	Wire, SiC/6061 Al	L6III-10-38-29
282 02	Structures	Wire, SiC/6061 Al	L6III-10-38-28
282 01	Structures	Wire, SiC/6061 Al	L6III-10-38-27
281 03	Structures	Wire, P55 (10K)/AZ91C	L6III-10-37-26
281 02	Structures	Wire, P55 (10K)/AZ91C	L6III-10-37-25
281 01	Structures	Wire, P55 (10K)/AZ91C	L6III-10-37-24
280	Structures	Wire, P100/AZ31B (Ti + B)	L6III-10-37-23
279	Structures	Strp. P100/AZ91C/AZ61A (0)	L6III-10-36 MG9 L1
278	Structures	Strp. 1300 tape/934 (0)	L6III-10-35-EP3-4
277	Structures	Strp. 1300 tape/934 (0)	L6III-10-34-EP3-3
274	Structures	Strp. W-722 (Graphite/Glass fabric)/P1700	L6III-10-31 PS2-4
271	Structures	Strp. Invar LR-35	L6III-10-28-SS1-7
268	Structures	Strp. GY70/201/2024 clad (0) (1 ply)	L6III-10-25-AL5-2
267	Structures	Strp. GY70/X-30 [0/45/90/135]4	L6III-10-24-EP1-2
266	Structures	Strp. GY70/201/2024 clad (0) (1 ply)	L6III-10-23-AL5-1
265	Structures	Strp. GY70/201/2024 clad (0) (1 ply)	L6III-10-22-AL5-9
264	Structures	Strp. GY70/201/2024 clad (90°)	L6III-10-21-AL4-2
263	Structures	Strp. GY70/201/2024 clad (90°)	L6III-10-20-AL4-1
262	Structures	Strp. GY70/201/2024 clad (0) (1 ply)	L6III-10-19-AL3-4
261	Structures	Strp. GY70/201/2024 clad (0) (1 ply)	L6III-10-18-AL3-3
260	Structures	Strp. VS832/6061-T6/6061 Al clad (90°), epsl meas, SG16	L6III-10-17-AL15-1
259	Structures	Strp. VS832/6061-T6/6061 Al clad (0) (1 ply), SG17, CTS4, epsl meas	L6III-10-16-AL14-10
258	Structures	Strp. GY70/201/2024 clad (1 ply) (0), epsl meas, SG18	L6III-10-15-AL3-2
257 02	Structures	Wire, P100/AZ31B (Ti + B)	L6III-10-14-22
257 01	Structures	Wire, P100/AZ31B (Ti + B)	L6III-10-14-21
256 04	Structures	Wire, P55(10K)6061Al	L6III-10-14-20
256 03	Structures	Wire, P55(10K)6061Al	L6III-10-14-19
256 02	Structures	Wire, P55(10K)6061Al	L6III-10-14-18
256 01	Structures	Wire, P55(10K)6061Al	L6III-10-14-17
255 04	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-16
255 03	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-15
255 02	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-14
255 01	Structures	Wire, P100/6061Al (Ti + B)	L6III-10-14-13
254	Structures	Wire, T300/6061Al	L6III-10-14-12
253	Structures	Wire, T300/6061 Al	L6III-10-13-11
252 02	Structures	Wire, P55/6061Al (Ti + B)	L6III-10-13-10
252 01	Structures	Wire, P55/6061Al (Ti + B)	L6III-10-13-9
251 02	Structures	Wire, GY70(8T)/201	L6III-10-13-8
251 01	Structures	Wire, GY70(8T)/201	L6III-10-13-7

DB#	Application	Description	Sample ID
250 02	Structures	Wire. P55(TiO2)/6061Al (Ti + B)	L6III-10-13-6
250 01	Structures	Wire. P55(TiO2)/6061Al (Ti + B)	L6III-10-13-5
249 04	Structures	Wire. P100/AZ61A (Ti + B)	L6III-10-13-4
249 03	Structures	Wire. P100/AZ61A (Ti + B)	L6III-10-13-3
249 02	Structures	Wire. P100/AZ61A (Ti + B)	L6III-10-13-2
249 01	Structures	Wire. P100/AZ61A (Ti + B)	L6III-10-13-1
248	Structures	Sinp. GY70/201/2024 (6 ply) clad SG19 [0 ± 60°]s. epsl meas	L6III-10-12-AL7-1
247	Structures	Sinp. VS0054/EZ33A/AZ31B clad. [0 ± 60°]s (6 ply) epsl meas. SG 20	L6III-10-11-MG7-1
246	Structures	Sinp. GY70/201/2024 clad [0 ± 60°]s (6 ply)	L6III-10-10-AL7-2
245	Structures	Sinp. VS0054/EZ33A/AZ31B clad [0 ± 60°]s (6 ply)	L6III-10-9-MG7-3
236	Structures	HA 43 polyarylate/ene (PAA)/T300 carbon fabric composite	L3IV-16-74 C
235	Structures	Aerospace polyarylate/ene (PAA)/T300 carbon fabric composite	L3IV-16-73 B
234	Structures	HA 43 polyarylate/ene (PAA)/T300 carbon fabric composite	L3IV-16-72 A
233	Structures	HA 43 polyarylate/ene/polyphenylquinoxaline blend/Low temp PAN composite	L3IV-16-71 D
230	Structures	Graphite/epoxy (conditioned) [T-300 unidirectional tape/Fiberite EA 934 epoxy resin [0°]]	L3IV-8-68-12
229	Structures	Graphite/poly sulfone (T-300/ P 1700 polysulfone resin [0°/90°])	L3IV-8-67-24
197	Structures	F glass fabric/CE 339 [(0)16]T. 250°F	L3IV-9-35 CM39
196	Structures	KEVLAR/epoxy K49 fabric/X904B [(0)16]T. 350°F	L3IV-9-34 CM37a
195	Structures	HMF 176/34 fabric [(0)2/90]2T. 350°F	L3IV-9-33 CM41b
194	Structures	HMF 176/34 fabric [(0)16]T. 350°F	L3IV-9-32 CM33a
193	Structures	Celion 6000/E788 [(0)16]T. 350°F	L3IV-9-31 CM29a
192	Structures	T-50/F263 [(0)4]T. 300°F	L3IV-9-30 CM43a
191	Structures	HMF 176/34 fabric (+45)4S. 350°F	L3IV-9-29 CM34c
190	Structures	T-50 (PAN)/E788 [(0)16]T. 350°F	L3IV-9-28 CM17a
189	Structures	T-50(PAN)/X904B-10 [(0)16]T. 350°F	L3IV-9-27 CM13b
188	Structures	T-50(PAN)/934 [(0)16]T. 350°F	L3IV-9-26 CM9a
187	Structures	T-50/F263 [(0)16]T. 350°F	L3IV-9-25 CM5a
186	Structures	GY70/CE 339. [(0)16]T. 250°F	L3IV-9-24 CM1b
162	Structures	Composite (unknown fiber/matrix)	L3III-16-75-E
157	Structures	Celion 6000/E788(+45/-45)2/+45)4T. 350°F	L3III-9-70 CM31c
156	Structures	T-50/F263 (+45/-45)2/+45)4T. 300°F	L3III-9-69 CM45c
155	Structures	KEVLAR/epoxy K49 fabric/X904B (+45)4S. 350°F	L3III-9-68 CM38d
154	Structures	T-50(PAN)/E788(+45/-45)2/+45)4T. 350°F	L3III-9-67 CM19b
153	Structures	T-50(PAN)/X904B-10(+45/-45)2/+45)4T. 350°F	L3III-9-66 CM15a
152	Structures	T-50(PAN)/934(+45/-45)2/+45)4T. 350°F	L3III-9-65 CM11b
151	Structures	T-50/F263(+45/-45)2/+45)4T	L3III-9-64 CM7b
150	Structures	GY70/CE 339(+45/-45)2/+45)4T. 250°F	L3III-9-63 CM3b
145	Structures	Silicon nitride. 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L3III-8-58-S2
144	Structures	Silicon nitride. 2-layer sandwich (foam layer 0.45" thick, skin layer 0.03" thick)	L3III-8-57-S12
143	Structures	Graphite/epoxy (T-300 unidirectional tape/Fiberite EA934 epoxy resin [0°])	L3III-8-56-10
142	Structures	Graphite/polymide (HTS-2 unidirectional tape/Fiberite EA934 epoxy resin [0°])	L3III-8-55-30
141	Structures	Three dimensional quartz phenolic	L3III-3-54-II
140	Structures	Three dimensional quartz phenolic	L3III-3-53-II

DB#	Application	Description	Sample ID
139	Structures	Graphite polysulfone	L3III-3-52-IV
136	Structures	Graphite polysulfone	L3III-3-51-IV
137	Structures	Tape-wrapped carbon phenolic	L3III-3-50-I
136	Structures	Tape-wrapped carbon phenolic	L3III-3-49-I
135	Structures	Pyrolytic carbon, Pyro-Carb 431	L3III-3-48-VII
134	Structures	Pyrolytic carbon, Pyro-Carb 431	L3III-3-47-VII
133	Structures	Aluminum 6061 T6	L3III-3-46-V
132	Structures	Aluminum 6061 T6	L3III-3-45-V
129	Structures	Aluminum 2024, Al/Cu alloy	L3III-3-42-IIIa
128	Structures	Aluminum 2024, Al/Cu alloy	L3III-3-41-IIIa
127	Structures	Special carbon/tungsten bearing resin	L3III-3-40-VI
126	Structures	Special carbon/tungsten bearing resin	L3III-3-39-VI
125	Structures	Graphite polyimide	L3III-3-38-III
124	Structures	Graphite polyimide	L3III-3-37-III
115	Structures	Celion 6000/E788(0/2/90)2T, 350°F	L3III-9-28-CM32
114	Structures	T50/F263 (0/2/90)2T, 300°F	L3III-9-27-CM46
113	Structures	HMS/3501-5A(0/2/90)2T, 290°F	L3III-9-26-CM28
112	Structures	T50(PAN)/E788(0/2/90)2T, 350°F	L3III-9-25-CM20
111	Structures	T50(PAN)/X904B-10(0/2/90)2T, 350°F	L3III-9-24-CM16
110	Structures	T50(PAN)/934 (0/2/90)2T, 350°F	L3III-9-23-CM12
105	Structures	Celion 6000/E788(-45/(-45)2/45)4T, 350°F	L3III-9-18-CM31d
104	Structures	T50/F263 (-45/(-45)2/45)4T, 300°F	L3III-9-17-CM45d
103	Structures	KEVLAR/epoxy 49 fabric/X904B (-45)4S, 350°F	L3III-9-16-CM38c
102	Structures	T50(PAN)/E788(-45/(-45)2/45)4T, 350°F	L3III-9-15-CM19a
101	Structures	T50(PAN)/X904B-10(-45/(-45)2/45)4T, 350°F	L3III-9-14-CM15d
100	Structures	T50 (PAN)/934(-45/(-45)2/45)4T, 350°F	L3III-9-13-CM11c
99	Structures	T50/F263 (-45/(-45)2/45)4T	L3III-9-12-CM7a
98	Structures	GY70/CE 399 (-45/(-45)2/45)4T, 250°F	L3III-9-11-CM3a
97	Structures	Celion 6000/E788(0/90)2/0)4T, 350°F	L3III-9-10-CM30b
96	Structures	T50/F263 (0/90)2/0)4T, 300°F	L3III-9-9-CM44a
95	Structures	Kevlar/epoxy K49 fabric/X904B (0/2/90)2T, 350°F	L3III-9-8-CM42b
94	Structures	T50(PAN)/E788(0/90)2/0)4T, 350°F	L3III-9-7-CM18a
93	Structures	T50 (PAN)/X904B 10(90)2/0) 4T, 350°F	L3III-9-6-CM14a
92	Structures	T50 (PAN)/934(0/90)2/0)4T, 350°F	L3III-9-5-CM10c
91	Structures	T50/F263 (0/2/90)2T, 350°F	L3III-9-4-CM8a
90	Structures	T50/F263 (0/90)2/0)4T, 350°F	L3III-9-3-CM6b
89	Structures	GY70/CE 339, (0/2/90)2T, 250°F	L3III-9-2-CM4a
88	Structures	GY70/CE-399, (0/90)2/0)4T, 250°F	L3III-9-1-CM2b
83	Structures	Polyphenylquinoxaline (PPQ) film on Al	L3II-18-75-J
792	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	T3IV-8-66-11
791	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	T3IV-8-65-9
790	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	T3IV-8-64-7
726	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628), 250°F	T3III-9-74-AB2-14

DB#	Application	Description	Sample ID
725	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	T3III-9-73-AB2-13
724	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	T3III-9-72-AB2-12
723	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	T3III-9-71-AB2-11
674	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	T3III-9-22-AB2-9
672	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	T3III-9-20-AB2-5
671	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	T3III-9-19-AB2-1
228	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	L3IV-8-66-12
227	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	L3IV-8-65-10
226	Structures, adhesive bond	Composite to composite (T-300/934) adhesive joint/Hysol EA 9628 epoxy	L3IV-8-64-8
161	Structures, adhesive bond	HMF 220C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-74-AB1-14
160	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-73-AB1-13
159	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-72-AB1-12
158	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-71-AB1-11
109	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-22-AB1-9
108	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-21-AB1-7
107	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-20-AB1-5
106	Structures, adhesive bond	HMF 330C/934-2024-HMF 330C/934 (9628). 250°F	L3III-9-19-AB1-2
1105 25	Structures, insulation	Graphite polyimide/Astroquartz 550-8N fabric	T6VI-13-20-25A
1105 23	Structures, insulation	ECOFOMAQ	T6VI-13-20-23A
1105 22	Structures, insulation	Graphite polyimide/capacitive grid material/ceramic standoff/Astroquartz 581	T6VI-13-20-22A
1105 21	Structures, insulation	Graphite polyimide/Fiberlas paper/Astroquartz 550/Astroquartz 581	T6VI-13-20-21A
824	Structures, optics	Mirror, GY70/201/2024 clad (0±60°)s	T6III-10-8-AL8-8
1070	Structures, thermal control	Sinp. T300/polyether sulfone/IrO2 coating	T6III-10-22C-PS14-2
1016	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-175-PS4-12
1015	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-174-PS4-11
1014	Structures, thermal control	Rivoted lap W-722 (Graphite/Glass fabric)/P1700, ZnO coating	T6III-10-173-PS6-8
1012	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-171-PS4-10
1011	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-170-PS3-12
996	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-155-PS3-11
995	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-154-PS3-10
989	Structures, thermal control	Sinp. W-722 (Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-148-PS5-8
933	Structures, thermal control	Rivoted lap, W-722 (Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-107-PS14-1
925	Structures, thermal control	Sinp. T300/polyether sulfone/IrO2 coating	T6III-10-99-PS13-2
924	Structures, thermal control	Sinp. T300/polyether sulfone/ZnO coating	T6III-10-98-PS13-1
908	Structures, thermal control	Rivoted lap, W-722 Graphite/Glass fabric/P1700/ZnO coating	T6III-10-82-PS6-6
907	Structures, thermal control	Rivoted lap, W-722 Graphite/Glass fabric/P1700/ZnO coating	T6III-10-81-PS6-5
904	Structures, thermal control	Sinp. T300 fiber/5208/W-Al flake coating	T6III-10-78-EP14-1
903	Structures, thermal control	Sinp. T300 fiber/5208/ZnO coating	T6III-10-77-EP15-2
879	Structures, thermal control	Sinp. W-722(Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-53-PS4-6
878	Structures, thermal control	Sinp. W-722(Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-52-PS4-5
877	Structures, thermal control	Rivoted lap W-722(Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-51-PS6-2
876	Structures, thermal control	Rivoted lap W-722(Graphite/Glass fabric)/P1700/IrO2 coating	T6III-10-50-PS5-6
875	Structures, thermal control	Sinp. W-722(Graphite/Glass fabric)/P1700/ZnO coating	T6III-10-49-PS4-2

DB#	Application	Description	Sample ID
874	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-48-PS3-6
875	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-33-PS3-4
876	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-32-PS3-3
877	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-27-PS5-4
878	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T6III-10-26-PS5-3
879	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	T3II-5-16-C16
880	Structures, thermal control	Polyphenylsulfone R 5000 10 mil Union Carbide	T3II-5-15-C15
881	Structures, thermal control	Polycarbonate 5 mil	T3II-5-14-C14
882	Structures, thermal control	Tefzel 500AE, 5 mil	T3II-5-13-C13
883	Structures, thermal control	Nylon 6/6, 5 mil	L6III-10-174-PS4-8
884	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-173-PS6-7
885	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-172-PS4-9
886	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-171-PS4-7
887	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-170-PS3-9
888	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-155-PS3-8
889	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-154-PS3-7
890	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-148-PS5-7
891	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-109-PS10
892	Structures, thermal control	Strip, 1300-P1700/ZnO coating	L6III-10-107-PS8
893	Structures, thermal control	Strip, 1300-P1700/TiO2 coating	L6III-10-82-PS6-4
894	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-81-PS6-3
895	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-77-EP15-1
896	Structures, thermal control	Strip, 1300-5208/ZnO coating	L6III-10-65-PS7
897	Structures, thermal control	Strip, 1300-polyethylene/TiO2 coating, epsilon meas. SG10	L6III-10-53-PS4-4
898	Structures, thermal control	Strip, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-52-PS4-3
899	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-51-PS6-1
900	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-50-PS5-5
901	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-49-PS4-1
902	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/ZnO coating	L6III-10-48-PS3-5
903	Structures, thermal control	Strip, W-722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-33-PS3-2
904	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-32-PS3-1
905	Structures, thermal control	Strip, W-722 (Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-27-PS5-2
906	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L6III-10-26-PS5-1
907	Structures, thermal control	Rivited lap, W 722(Graphite/Glass fabric)/P1700/TiO2 coating	L3-V
908	Structures, thermal control	Composite panel graphite/934 [O2, 45, O2, 45, 90, O2s, with 3 coatings A276, Z306, S13GLO	L3II-5-16-C16
909	Structures, thermal control	Polyphenylsulfone R-5000, 10 mil, Union Carbide	L3II-5-15-C15
910	Structures, thermal control	Polycarbonate, 5 mil	L3II-5-14-C14
911	Structures, thermal control	Tefzel 500AE, 5 mil	L3II-5-13-C13
912	Structures, thermal control	Nylon 6/6, 5 mil	T3III-9-21-AB2-7
913	Structures, adhesive bond	HMF 330C-934-2024-HMF 330C-934 (9528), 250-F	T6VI-13-20-24A
914	Thermal control	Flexible dielectric stack dielectric stack/Kapton	T6VI-13-20-09A
915	Thermal control	Radiator coating BaF2/Ag/Al	T6VI-13-20-08A
916	Thermal control	Radiator coating Boron nitride, grade HP	T6VI 13 20 06A
917	Thermal control	Flexible reflector Al2O3 (0.3255 µm/Ag (0.24 µm) Al2O3 (0.0323 µm)/ Al foil	

Obs Application	Description	Sample ID
1105 05 Thermal control	Flexible reflector AL203(0.3255 μm) Ag10.2(μm)Al2O3(0.0323 μm); 2 mil Kapton	T6VI-13-20-05A
1105 04 Thermal control	Flat solar reflector Barrier anodizer Al	T6VI-13-20-04A
1105 03 Thermal control	Flat solar reflector Leasing Al paint (polysulfate binder)/ Al	T6VI-13-20-03A
1105 01 Thermal control	Flexible reflector Denton silver Al	T6VI-13-20-01A
1095 Thermal control	Teflon FEP/Ag/Inconel 5 mil, Sheldahl	T6VI-5-14 A8
1098 Thermal control	White paint 793 IIR1	T6VI-5-13 A13
1097 Thermal control	White paint YB 71 IIR1	T6VI-5-12 A15
1096 Thermal control	White paint Eu2O3/RIV 602, ML101, Air Force Materials Laboratory	T6VI-5-11 A17
1095 Thermal control	White paint PV100 1:O2/silicone resin, ML101, Air Force Materials Laboratory	T6VI-5-10 A19
1094 Thermal control	White paint DC32 007 1:O2/RIV 3140 Rockwell Int	T6VI-5-9 A21
1093 Thermal control	Quartz fabric 581 (Astroquartz)/Teflon FEP/Al General Electric	T6VI-5-8 A1
1092 Thermal control	Teflon FEP/Ag/Inconel 2 mil, Sheldahl	T6VI-5-7 A7
1091 Thermal control	Kapton/Al 5 mil, Sheldahl	T6VI-5-6 A11
1090 Thermal control	White paint S13GLO IIR1	T6VI-5-5 A14
1088 Thermal control	White paint NS 43G NASA Goddard Space Flight Center	T6VI-5-3 A16
1087 Thermal control	White paint alpha A17O3/RIV 602 ML101, Air Force Materials Laboratory	T6VI-5-2 A18
1086 Thermal control	White paint 1:O2-RIV 602 ML101, Air Force Materials Laboratory	T6VI-5-1 A20
954 Thermal control	Black oxide coating on 304 stainless steel substrate	T6III-9-128 TC19-4
952 Thermal control	GE SHC 1010 coating on Al substrate	T6III-9-126 IC17-5
951 Thermal control	Vestor coating on Al substrate	T6III-9-125 IC16-8
950 Thermal control	JB-1 black coating on Ta substrate	T6III-9-124 TC15-29
949 Thermal control	LMSC modified Ceramics 931 coating on Ta substrate	T6III-9-123 TC14-9
822 Thermal control	Black oxide coating on 304 stainless steel substrate	T6III-9-6 TC19-3
820 Thermal control	GE SHC 1010 coating on Al substrate	T6III-9-4 TC17-3
819 Thermal control	Vestor coating on Al substrate	T6III-9-3 TC16-7
818 Thermal control	JB-1 black coating on Ta substrate	T6III-9-2 TC15-25
817 Thermal control	LMSC modified Ceramics 931 coating on Ta substrate	T6III-9-1 TC14-6
795 Thermal control	Rhodium coated glassy carbon substrate	T3IV-15-69-Z2
787 Thermal control	Teflon FEP polymer coating Spraylon 7075	T3IV-9-61 TC1
786 Thermal control	Teflon FEP polymer coating Spraylon 7075	T3IV-9-60 TC1
785 Thermal control	Black silicone high temperature paint Spex SP 102	T3IV-9-59 TC4
784 Thermal control	Black silicone high temperature paint Spex SP 102	T3IV-9-58 TC4
783 Thermal control	Ceramic coating black HS 4 on LI 900	T3IV-9-57 TC8
782 Thermal control	Ceramic coating black HS 4 on LI 900	T3IV-9-56 TC8
781 Thermal control	Ceramic coating black borated silica coating	T3IV-9-55 TC7
780 Thermal control	Ceramic coating black borated silica coating	T3IV-9-54 TC7
779 Thermal control	Ceramic coating white borated silica	T3IV-9-53 TC6
778 Thermal control	Ceramic coating white borated silica	T3IV-9-52 TC6
777 Thermal control	White silicone high temperature paint Spex AP 101	T3IV-9-51 TC3
776 Thermal control	White silicone high temperature paint Spex AP 101	T3IV-9-50 TC3
775 Thermal control	Teflon FEP polymer coating Spraylon 7075	T3IV-9-47 TC5
772 Thermal control	Teflon FEP polymer coating Spraylon 7075	T3IV-9-46 TC5
771 Thermal control	Polyurethane black paint Chemglaze Z306	T3IV-9-45 TC13

DBA Application	Description	Sample ID
770 Thermal control	Polysulfone black paint, Chemglaze Z306	T3IV-9-44-TC13
769 Thermal control	Polysulfone white paint, Chemglaze A27611	T3IV-9-43-TC12
768 Thermal control	Polysulfone white paint, Chemglaze A27611	T3IV-9-42-TC12
767 Thermal control	Coated molybdenum foil, S3M4	T3IV-9-41-TC11
766 Thermal control	Coated molybdenum foil, S3M4	T3IV-9-40-TC11
765 Thermal control	Coated molybdenum foil, P238 later (A203)	T3IV-9-39-TC10
764 Thermal control	Coated molybdenum foil, P238 later (A203)	T3IV-9-38-TC10
763 Thermal control	Coated molybdenum foil, 4p S02	T3IV-9-37-TC9
762 Thermal control	Coated molybdenum foil, 4p S02	T3IV-9-36-TC9
761 Thermal control	White thermal control paint, S13GLO-6061 Al, IIRI	T3IV-18-18
760 Thermal control	White thermal control paint, S13GLO-6061 Al, IIRI	T3IV-18-17
759 Thermal control	Black thermal control paint, D1111/Al, IIRI	T3II-18-73 W
758 Thermal control	White thermal control paint, YB 71/Al, IIRI	T3II-18-72-V1
757 Thermal control	Sprinkled black rhodium coating on polished molybdenum substrate	T3II-15-71 U1
756 Thermal control	Sprinkled black rhodium coating on polished molybdenum substrate	T3II-15-70 11
755 Thermal control	Sprinkled black rhodium coating on polished molybdenum substrate	T3II-15-69 S1
754 Thermal control	Polished molybdenum mirror	T3II-15-68 R1
753 Thermal control	Iridium foil bonded with DC 6 1104 to aluminum substrate	T3II-15-67-O1
752 Thermal control	Rhodium foil bonded with DC 6 1104 to aluminum substrate	T3II-15-66-P1
751 Thermal control	White paint, DC92 007 102RIV 3140, Rockwell Int	T3II-5-44 A22
750 Thermal control	White paint, DC92 007 102RIV 3140, Rockwell Int	T3II-5-43-A21
749 Thermal control	White paint, 102RIV 602, ML 101, Air Force Materials Laboratory	T3II-5-42-A20
748 Thermal control	White paint, PV100 102RIV 602, ML 101, Air Force Materials Laboratory	T3II-5-41-A19
747 Thermal control	White paint, alpha A203RIV 602, ML 101, Air Force Materials Laboratory	T3II-5-40-A18
746 Thermal control	White paint, Eu203RIV 602, ML 101, Air Force Materials Laboratory	T3II-5-35-A17
745 Thermal control	White paint, NS 43G, NASA Goddard Space Flight Center	T3II-5-34-A16
744 Thermal control	White paint, YB 71, IIRI	T3II-5-33 A15
743 Thermal control	White paint, S13GLO, IIRI	T3II-5-32-A14
742 Thermal control	White paint, Z93, IIRI	T3II-5-31-A13
741 Thermal control	In-203/Kapton/Al, 5 ml, General Electric	T3II-5-30-A12
740 Thermal control	Kapton/Al, 5 ml, Sheldahl	T3II-5-29 A11
739 Thermal control	Kapton/Al, 1 ml, Sheldahl	T3II-5-28-A10
738 Thermal control	In-203/Teflon FEP/AgInconel, 5 ml, General Electric	T3II-5-27-A9
737 Thermal control	Teflon FEP/AgInconel, 5 ml, Sheldahl	T3II-5-26-A8
736 Thermal control	Teflon FEP/AgInconel, 2 ml, Sheldahl	T3II-5-25-A7
735 Thermal control	Black paint, D111, IIRI	T3II-5-23-A5
734 Thermal control	Iridium film on Teflon FEP/AgInconel, 2 ml, Sheldahl	T3II-5-22 A4
733 Thermal control	Porcelain enamel on Al, NASA Marshall Space Flight Center	T3II-5-21-A3
732 Thermal control	Iridium film on Teflon FEP/AgInconel, 5 ml, Sheldahl	T3II-5-20-A2
731 Thermal control	Quartz fabric, S81 (Astroquartz/Teflon FEP/Al, General Electric	T3II-5-19-A1
730 Thermal control	Teflon FEP type A, 5 ml	T3II-5-5-C5
729 Thermal control	Kapton/Al, 5 ml, Sheldahl	T3II-5-4 C4
728 Thermal control	Kapton/Al, 1 ml, Sheldahl	T3II-5-3-C3

Des	Application	Description	Sample ID
576	Thermal control	Teflon FEP/AgInconel 5 mil, Sheldahl	T3II-5-2-C2
577	Thermal control	Teflon FEP/AgInconel 2 mil, Sheldahl	T3II-5-1-C1
547	Thermal control	White paint DC92 607 102RIV 3140 Rockwell Int	L6VI-5-43-A22
541	Thermal control	White paint DC97 607 102RIV 3140 Rockwell Int	L6VI-5-42-A21
540	Thermal control	White paint 102RIV 602, MR 101 Air Force Materials Laboratory	L6VI-5-41-A20
539	Thermal control	White paint PY100 102RIV/epoxy resin, MR 101 Air Force Materials Laboratory	L6VI-5-40-A19
538	Thermal control	White paint alpha A200RIV 602, MR 101 Air Force Materials Laboratory	L6VI-5-39-A18
537	Thermal control	White paint 102RIV 602, MR 101 Air Force Materials Laboratory	L6VI-5-38-A17
536	Thermal control	White paint NS 43G NASA Goddard Space Flight Center	L6VI-5-37-A16
535	Thermal control	White paint YB 71 HIRI	L6VI-5-36-A15
534	Thermal control	White paint ST3GL 7 HIRI	L6VI-5-35-A14
533	Thermal control	White paint 293 HIRI	L6VI-5-34-A13
532	Thermal control	102RIV/AgInconel 5 mil, General Electric	L6VI-5-33-A12
531	Thermal control	Kapton/Al 5 mil Sheldahl	L6VI-5-32-A11
530	Thermal control	Kapton/Al 1 mil, Sheldahl	L6VI-5-31-A10
529	Thermal control	102RIV/AgInconel 5 mil General Electric	L6VI-5-30-A9
528	Thermal control	Teflon FEP/AgInconel 5 mil Sheldahl	L6VI-5-29-A8
516	Thermal control	Teflon FEP/AgInconel 2 mil Sheldahl	L6VI-5-17-A7
513	Thermal control	Black paint D111, HIRI	L6VI-5-13-A5B
511	Thermal control	Indium tin under-teflon FEP/AgInconel 2 mil Sheldahl	L6VI-5-12-A4
510	Thermal control	Fluorocarbon enamel on Al NASA Marshall Space Flight Center	L6VI-5-11-A3LC
507	Thermal control	Indium tin under-teflon FEP/AgInconel 5 mil Sheldahl	L6VI-5-8-A2
506	Thermal control	Quartz fabric 581 (Asynchronous) Teflon FEP/Al General Electric	L6VI-5-7-A1
372	Thermal control	Stainless steel substrate black oxide coating	L6III-9-128-TC19-2
371	Thermal control	Al substrate/CE SHC 1010 coating	L6III-9-127-TC17-2
370	Thermal control	Al substrate/Vestair coating	L6III-9-126-TC16-5
369	Thermal control	Ta substrate/Al 1 black coating	L6III-9-125-TC15-24
368	Thermal control	Ta substrate/Al 1 black coating	L6III-9-124-TC14-5
244	Thermal control	Black oxide coating on 304 stainless steel substrate	L6III-9-8-TC19-1
240	Thermal control	CE SHC 1010 coating on Al substrate	L6III-9-4-TC17-1
239	Thermal control	Vestair coating on Al substrate	L6III-9-3-TC16-4
238	Thermal control	JB 1 black coating on Ta substrate	L6III-9-2-TC15-21
237	Thermal control	LMSC modified Colomex 931 coating on Ta substrate	L6III-9-1-TC14-4
231	Thermal control	Rhodium coated glassy carbon substrate	L3IV-15-69-71
223	Thermal control	Teflon FEP polymer coating Spraylon 7075	L3IV-9-61-TC5
222	Thermal control	Teflon FEP polymer coating Spraylon 7075	L3IV-9-60-TC5
221	Thermal control	Black silicone high temperature paint Sperex SP 102	L3IV-9-59-TC4
220	Thermal control	Black silicone high temperature paint Sperex SP 102	L3IV-9-58-TC4
219	Thermal control	Ceramic coating black HS 4 on L1-900	L3IV-9-57-TC8
218	Thermal control	Ceramic coating black HS 4 on L1-900	L3IV-9-56-TC8
217	Thermal control	Ceramic coating black borated silica coating	L3IV-9-55-TC7
216	Thermal control	Ceramic coating black borated silica coating	L3IV-9-54-TC7
215	Thermal control	Ceramic coating white borated silica	L3IV-9-53-TC6

Obs Application	Description	Sample ID
214 Thermal control	Ceramic coating white borated silica	L3IV-9-52-TC6
213 Thermal control	White silicone high temperature paint Spieser AP 101	L3IV-9-51-TC3
212 Thermal control	White silicone high temperature paint Spieser AP 101	L3IV-9-50-TC3
209 Thermal control	Teflon FEP polymer coating Sprayon 7075	L3IV-9-47-TC1
208 Thermal control	Teflon FEP polymer coating Sprayon 7075	L3IV-9-46-TC1
207 Thermal control	Polysulfone black paint Chemglaze 7106	L3IV-9-45-TC13
206 Thermal control	Polysulfone black paint Chemglaze 7106	L3IV-9-44-TC13
205 Thermal control	Polysulfone white paint Chemglaze A276-II	L3IV-9-43-TC12
204 Thermal control	Polysulfone white paint Chemglaze A276-II	L3IV-9-42-TC12
203 Thermal control	Coated molybdenum foil SGM	L3IV-9-41-TC11
202 Thermal control	Coated molybdenum foil SGM	L3IV-9-40-TC11
201 Thermal control	Coated molybdenum foil P238 later (A203)	L3IV-9-39-TC10
200 Thermal control	Coated molybdenum foil P238 later (A203)	L3IV-9-38-TC10
199 Thermal control	Coated molybdenum foil 4p SGM	L3IV-9-37-TC9
198 Thermal control	Coated molybdenum foil 4p SGM	L3IV-9-36-TC9
189 Thermal control	White thermal control paint S12C10-6061 Al IIIRI	L3IV-18-18-2
188 Thermal control	White thermal control paint S12C10-6061 Al IIIRI	L3IV-18-17-1
179 Thermal control	Sprayed black chrome coating on molybdenum substrate	L3II-15-79-N1
87 Thermal control	Black glass coating on molybdenum substrate	L3II-15-78-M1
86 Thermal control	Sprayed black chrome coating on molybdenum substrate	L3II-15-77-L1
85 Thermal control	Sprayed black chrome coating on molybdenum substrate	L3II-15-76-K
84 Thermal control	Sprayed black chrome coating on molybdenum substrate	L3II-18-73-H1
83 Thermal control	Black thermal control paint D111-AI, IIIRI	L3II-18-72-G1
80 Thermal control	White thermal control paint VB 71/AI, IIIRI	L3II-15-71-F1
79 Thermal control	Black chrome coating on molybdenum substrate	L3II-15-70-E1
78 Thermal control	Sprayed black chrome coating on polished molybdenum substrate	L3II-15-69-D1
77 Thermal control	Sprayed black chrome coating on polished molybdenum substrate	L3II-15-68-C1
76 Thermal control	Polished molybdenum mirror	L3II-15-67-B1
75 Thermal control	Iridium foil bonded with DC 6-1104 to aluminum substrate	L3II-15-66-A1
74 Thermal control	Iridium foil bonded with DC 6-1104 to aluminum substrate	L3II-5-44-A22
52 Thermal control	White paint DC32 007 1-02-RIV 3140, Rockwell Int	L3II-5-43-A21
51 Thermal control	White paint DC32 007 1-02-RIV 3140, Rockwell Int	L3II-5-42-A20
50 Thermal control	White paint 1-02-RIV 602, ML101, Air Force Materials Laboratory	L3II-5-41-A19
49 Thermal control	White paint PV100 IGZ-silicone resin, ML101, Air Force Materials Laboratory	L3II-5-40-A18
48 Thermal control	White paint, alpha-A203-RIV 602, ML101, Air Force Materials Laboratory	L3II-5-35-A17
43 Thermal control	White paint, Eu2O3-RIV 602, ML101, Air Force Materials Laboratory	L3II-5-34-A16
42 Thermal control	White paint, NS 436, NASA Goddard Space Flight Center	L3II-5-33-A15
41 Thermal control	White paint, VB-71, IIIRI	L3II-5-32-A14
40 Thermal control	White paint, S12C10, IIIRI	L3II-5-31-A13
39 Thermal control	White paint, Z53, IIIRI	L3II-5-30-A12
38 Thermal control	Ln2O3-Kapton/Al, 5 mil, General Electric	L3II-5-29-A11
37 Thermal control	Kapton/Al, 5 mil, Sheldahl	L3II-5-28-A10
36 Thermal control	Kapton/Al, 1 mil, Sheldahl	L3II-5-27-A9
35 Thermal control	Ln2O3/Teflon FEP/AgInconel, 5 mil, General Electric	

DB#	Application	Description	Sample ID
34	Thermal control	Teflon FEP/AgInconel, 5 mil, Sheldahl	L311-5-26-A8
33	Thermal control	Teflon FEP/AgInconel, 2 mil, Sheldahl	L311-5-25-A7
31	Thermal control	Black paint, D111, BTR	L311-5-23-A5
30	Thermal control	Indium-Tin oxide/Teflon FEP/AgInconel, 2 mil, Sheldahl	L311-5-22-A4
29	Thermal control	Powder enamel on Al, NASA Marshall Space Flight Center	L311-5-21-A3
28	Thermal control	Indium-Tin oxide/Teflon FEP/AgInconel, 5 mil, Sheldahl	L311-5-20-A2
27	Thermal control	Quartz labnc 581 (Astroquartz) Teflon FEP-Al General Electric	L311-5-19-A1
13	Thermal control	Teflon FEP type A, 5 mil	L311-5-5-C5
12	Thermal control	Kapton/Al 5 mil Sheldahl	L311-5-4-C4
11	Thermal control	Kapton/Al 1 mil Sheldahl	L311-5-3-C3
10	Thermal control	Teflon FEP/AgInconel 5 mil, Sheldahl	L311-5-2-C2
9	Thermal control	Teflon FEP/AgInconel 2 mil, Sheldahl	L311-5-1-C1
641	Thermal control	Black chrome coating on molybdenum substrate	L311-15-65-O1
2004	Thermal control adhesive bond	Teflon FEP/AgInconel/adhesive sheet	L31-20-1
Q53	Thermal control adhesive bond	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	L6111-9-127-TC18-4
831	Thermal control adhesive bond	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	L6111-9-5-TC18-3
775	Thermal control adhesive bond	Silicone paint black vacuum distilled RTV 602	L31V-9-49-TC2
774	Thermal control adhesive bond	Silicone paint black vacuum distilled RTV 602	L31V-9-48-TC2
588	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/NATO IIC/Kapton, 8.5 mil	L311-5-12-C12
587	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/Y966/Kapton (5 mil)	L311-5-11-C11
586	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Al/Kapton (5 mil)	L311-5-10-C10
585	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Kapton (5 mil)	L311-5-9-C9
584	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Kapton (5 mil)	L311-5-8-C8
583	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Kapton (5 mil)	L311-5-7-C7
582	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/Eccobond 57C/Kapton (5 mil)	L311-5-6-C6
373	Thermal control adhesive bond	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	L6111-9-129-TC18-2
743	Thermal control adhesive bond	Tedlar (400BS30W11) bonded to Al with Isolack Y9469	L6111-9-7-TC18-1
211	Thermal control adhesive bond	Silicone paint black vacuum distilled RTV 602	L31V-9-49-TC2
210	Thermal control adhesive bond	Silicone paint black vacuum distilled RTV 602	L31V-9-48-TC2
20	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/NATO IIC/Kapton, 8.5 mil	L311-5-12-C12
19	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/Y966/Kapton (5 mil)	L311-5-11-C11
18	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Al/Kapton (5 mil)	L311-5-10-C10
17	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Kapton (5 mil)	L311-5-9-C9
16	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Kapton (5 mil)	L311-5-8-C8
15	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/RTV 560-12% graphite/Kapton (5 mil)	L311-5-7-C7
14	Thermal control adhesive bond	Teflon FEP/AgInconel (5 mil)/Eccobond 57C/Kapton (5 mil)	L311-5-6-C6
2003	Thermal control hardware	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	D8-Sunshield
2002	Thermal control hardware	STCLO painted Al box covering signal conditioning unit	D8-SCU Cover
2001	Thermal control hardware	Chemglaze A276 painted Al sunshield covering Experiment Power and Data System	D4-Sunshield
2000	Thermal control hardware	STCLO painted Al box covering signal conditioning unit	D4-SCU Cover
1106	Thermal control hardware	Ag/Teflon FEP covered aperture holding 11 sun pumped laser coatings	T6V1-6-21-11
1105	Thermal control hardware	Ag/Teflon FEP covered aperture plate on cassette containing 25 optical samples	T6V1-13-20-A
628	Thermal control hardware	Ag/Teflon FEP covered cassette holding 26 laser communication coatings and optical materials	T311-6-52-1A&B

DB#	Application	Description	Sample ID
627	Thermal control hardware	Ag/Teflon FEP covered cassette containing 11 sun pumped laser coatings	T3II-6-S1-III
513	Thermal control hardware	Ag/Teflon FEP covered cassette holding four laser communication components	L6VI-6-14-IV
59	Thermal control hardware	Ag/Teflon FEP covered cassette holding 9 laser communication detectors	L3II-6-S1-V
1105 11	Thermal control optics	Solar absorber Black chrome on nickel foil	T6VI-13-20-11A
1105 1	Thermal control optics	Flexible mirror Dielectric Stack, Al2O3/Ag/Kapton	T6VI 13-20-10A
1104	Thermal control optics	Au mirror/Al	T6VI 5 19 B3
1103	Thermal control optics	Optical Solar Reflector OCL1 Si 100	T6VI-5 18 B1
1102	Thermal control optics	Optical Solar Reflector OCL1 Si 100 with conductive coating	T6VI-5-17-B2
1101	Thermal control optics	Al mirror/glass	T6VI-5-16-B4
1089	Thermal control optics	Ag mirror/Al	T6VI 5-4-B5
615	Thermal control optics	Ag mirror/Al	T3II 5 39-B6
614	Thermal control optics	Ag mirror/Al	T3II 5 38-B5
613	Thermal control optics	Al mirror/glass	T3II-5-37-B4
612	Thermal control optics	Au mirror/Al	T3II-5-36-B3
594	Thermal control optics	Optical Solar Reflector OCL1 Si 100 with conductive coating	T3II 5 18 B2
593	Thermal control optics	Optical Solar Reflector OCL1 Si 100	T3II 5 17 B1
527	Thermal control optics	Optical Solar Reflector OCL1 Si 100 with conductive coating	L6VI-5 28 B2
525	Thermal control optics	Au mirror/Al	L6VI 5-26-B3
524	Thermal control optics	Ag mirror/Al	L6VI 5 25 B5
523	Thermal control optics	Al mirror/glass	L6VI 5 24 B4
522	Thermal control optics	Optical Solar Reflector OCL1 Si 100	L6VI-5-23-B1
47	Thermal control optics	Ag mirror/Al	L3II 5-39-B6
46	Thermal control optics	Ag mirror/Al	L3II-5-38-B5
45	Thermal control optics	Al mirror/glass	L3II-5-37-B4
44	Thermal control optics	Au mirror/Al	L3II 5-36-B3
26	Thermal control optics	Optical Solar Reflector, OCL1 Si 100 with conductive coating	L3II-5-18-B2
25	Thermal control optics	Optical Solar Reflector OCL1 Si 100	L3II-5-17-B1

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